

THE

# Country GUIDE

In This Issue . . .

Top Bulls for Everyone

• Feud in the Chilcotin

• Old Favorite Pickles

CANADA'S NATIONAL RURAL MONTHLY

V 77 #8



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# THE Country GUIDE

Incorporating The Nor'-West Farmer and Farm and Home  
CANADA'S NATIONAL RURAL MONTHLY

## In This Issue



**WORKMEN'S COMPENSATION** applies to farming as much as to other industries. Ontario's scheme started modestly, using this former military camp as a hospital. The demand for coverage is now so strong, that a new hospital was opened recently. See story on page 13.

**CLIFF FAULKNER** has been digging into the pros and cons of crossbreeding and brings you up to date on this vital topic. "Crossbreeding" is on page 12.

**HENRY FORD'S** first car could have been no greater joy to him than Sixty-Five Plus was to young Fixit. Sure of its worth and his own prudence, Fixit steered his car "the Canadian way." See page 40.

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**COVER:** We don't know whether people open The Country Guide the moment they take it from the mail box, but Don Smith took this picture at an Ontario farm, and we admire his choice, in more ways than one.

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# Editorials

## Can We Have It Both Ways?

NOT everyone shares with equal enthusiasm some of the activities of the Conservative Government in the field of international trade and economic relations. The reason is a simple one. At least in some of the actions taken, Prime Minister Diefenbaker and his colleagues have been inconsistent with their stated objectives.

Let us briefly examine the record. In his budget address to the House of Commons in June the Minister of Finance, Mr. Fleming, described his party's broad objectives as follows:

1. To achieve expansion, diversification, better balance and greater stability in our trade with all countries;
2. To extend and strengthen Canada's trade and economic relationship with the Commonwealth;
3. To support and promote a regime of law, order and morality in the field of international trade; to respect the spirit and intent of international commitments; and to stand ready to defend our rights and interests if they are challenged or ignored;
4. To recognize the legitimate needs of Canadian producers; and to safeguard them against unfair trade practices;
5. To promote the balanced growth of all sectors of Canadian industry and agriculture.

These are, indeed, reasonable aims which have received the support of the majority of the electorate. Notwithstanding, the same budget address was correctly labelled, in our opinion, protectionist in tone. It included announcements of tariff adjustments on a large number of items many of which were directed at making it tougher for outside competitors to win a share of the Canadian market. The most significant of these were tariff increases on British woollens, and tariff changes on primary iron and steel products, pipes and tubes, zinc and zinc products. Mr. Fleming also used the occasion to report that the Government intended to introduce sweeping anti-dumping measures which would protect Canadian industries to a greater extent than the existing anti-dumping law.

Now it seems to us what the present Government is saying is that it intends to press for wider access to the markets of the world for Canadian goods, while at the same time taking steps to make it more difficult for other countries to gain access to our markets. There is no denying that countries which have trading deficits with Canada are under constant pressure to endeavor to reduce them. This means, of course, that they must either reduce their purchases from Canada, or alternatively, increase their sales to this country. If we raise our tariffs and adopt other means of protecting our industries, then the danger of reduced Canadian exports is that much greater.

It has been repeatedly said that Canada must export to live. One out of every five Canadians derives his livelihood directly from international trade, and Canadians are, in fact, more dependent on export trade than are the people of any other industrialized nations.

We are not so naive as to suggest that Canada has not followed a policy of protective tariffs in achieving this level of trade. Nevertheless, we are strongly of the conviction that it was made possible by following a policy over a good many years of gradually reducing tariffs on a large number of items—a policy that led Mr. R. A. Butler of the United Kingdom to say: "I believe, thanks not least to the Canadian Government's liberal trade policies, that market is the fairest and most open in the world. . . ."

In view of the Russian trade offensive, the distinct possibility of the development of a free trade area in Europe, and the interest shown by other countries in organizing trading blocks, would it not be wise for Canada to vigorously pursue a trade offensive, rather than a trade defensive policy? The Commonwealth Conference on Trade and Economic Affairs is slated to be held next month in Montreal. It has all the earmarks of being a golden opportunity to come forward with farsighted proposals, which when implemented, can go a long way to meeting the Communist threat in the economic field. It is to be hoped our representatives will do the nation credit by more than playing hosts at this important meeting. V

## Economists at Work

CANADA has a growing number of scientific societies in the agricultural field. Membership in these societies is made up of university graduates from our colleges of agriculture who have specialized in some particular aspect of the farming industry, such as plant science, animal science, soil science, agricultural engineering, agricultural economics and the like. Through organization, their aim is to improve their own knowledge and work and, in this way, to make a greater contribution to agricultural progress than would otherwise be possible.

Like most scientific groups in our society they go about their work with a minimum of fanfare, but with considerable effectiveness. Many of our readers may not even know that these societies exist. Still, in one way and another, they are functioning in the interests of farm people throughout our nation.

Our purpose here is to tell you about a fairly recent development in the activities of only one such society. Since 1956, the Canadian Agricultural Economics Society has been sponsoring an annual workshop. Members of the Society from our universities, farm organizations, government services and industry come

together to spend a week of concentrated study on timely topics of direct concern to the farming industry.

The workshop technique provides a first rate opportunity for those with special training and interest in farm economics to come to grips with some of the most urgent problems, not only of their own discipline, but of the industry which they serve. They are an excellent means for these people to exchange the findings of their own investigations, and to swap ideas and viewpoints. They stimulate objective thinking, break down parochialisms, clearly define problem areas, and come up with some useful ideas which, if put to use, could assist materially in finding solutions to some of the rural problems.

The Country Guide has had the good fortune to be represented at both the 1957 and 1958 workshops. They were devoted, respectively, to "Research in Relation to Agricultural Adjustment" and "The 'Small Farm' Problem." And while the workshops are intended primarily as an exercise for the participants, they do provide reports of considerable value. We submit that such reports, even though they are neither exhaustive nor polished documents, are well worth close scrutiny by those who have a responsibility for formulating and administering farm policies. V

## Higher Incomes Within Reach

STORIES in our feature pages during recent months have reported some of the things that farmers across Canada are doing to produce better livestock and livestock products. There has been a great surge of new and improved techniques covering practically every aspect of animal husbandry, and all of them have a single objective, which is a more adequate income for the farm family.

These stories have covered dairy herd improvement, performance testing of beef cattle, artificial insemination for both beef and dairy herds, better feeding, modern housing, mechanization and labor-saving ideas, and sound management. One cannot help but be impressed by the progress that is being made. Unfortunately, it is all too clear that the benefits have been confined to the relatively small number of producers who have tried these new techniques.

Recently, we met a young farmer who had decided that his future lay in commercial beef cattle. He was concerned about the quality of his herd and decided, at considerable sacrifice, to purchase a good purebred bull. It cost him \$1,000 and came from a herd with a fine reputation, but it turned out to be a "lemon." It's an old story and it could go on forever, unless more people can be convinced that such things as performance testing and artificial insemination are there to help the producer, big or small. What a boon it would have been to this young farmer if he could have had reasonable proof that he was buying a good bull, or if an artificial breeding unit had provided him with semen from a proven bull.

Take a look at the other side of the picture. In Ontario, a group of farmers through their own initiative, and with assistance from their Dairy Herd Improvement Association, have increased their individual net incomes by an average of \$1,600 a year. In Saskatchewan, a rancher switched to A.I. for breeding range cattle and saved an overhead investment in bulls of some \$25,000, plus about \$5,000 in replacement costs and \$3,500 in maintenance. In Manitoba, another young farmer decided to place all of his calves on performance tests and is quickly discovering to what extent his breeding herd is producing beef animals which can earn him a fair profit.

To show what one known improvement can do for farmers who are willing to make the effort, here is a quotation from a paper presented by Prof. W. E. Howell of the University of Saskatchewan at the annual meeting of the Saskatchewan Institute of Agrologists. He said: "Instead of using a large number of dairy bulls whose daughters average about 5,000 lb. of milk in a lactation, we could use bulls whose daughters have averaged at least twice and even three times that amount. The difference between the annual labor income from a 5,000 lb. producer and a 13,000 lb. producer is at least \$200. In other words, a man with 20 cows producing an average of 13,000 lb. of milk each year would make an additional \$4,000 over and above the \$2,000 labor income obtained by the man with 20 cows producing 5,000 lb. of milk.

Canada is going to need a lot more meat and livestock products to satisfy the demands of a growing population. The farmers who make the effort to improve their efficiency are the ones who will have to meet this demand and will profit by it. On the other hand, those who stick to the old ways, and remain on the farm, are in danger of having progressively lower incomes as time goes by. It can be proved beyond question that improved techniques are not for the wealthy alone. These things are for everybody. Surely it makes sense to follow the lead of those practical farmers who have discovered that improved breeding and management are the keys to prosperity in the livestock industry. V



## What Farm Organizations Are Doing

### CFA BOARD MEETS

The Canadian Federation of Agriculture Board of Directors, meeting in Port Arthur July 28, 29 and 30, reviewed developments and policy on a wide range of economic and social subjects affecting farm people. The following are the highlights of the deliberations:

**Unemployment Insurance.** The meeting recognized that in some sections of the farm industry the exemption of farm labor from unemployment insurance coverage places the farmer at a disadvantage in the labor market. The Board agreed to recommend that such insurance be extended to sections of the industry in which the need for coverage is generally felt.

**Farm Credit.** Problems of both long and intermediate term credit, as well as those of short term credit were discussed. The Board felt that urgent action was needed on the Government's promised new farm credit legislation, especially in the direction of long term and supervised "package" credit. Such credit would help farmers hampered by lack of capital to get set up with adequate land, buildings and equipment. The Board concluded that such legislation would also ease the short term production credit problems, but agreed that farm needs in this field required further study—especially the possibilities of supplying funds to credit unions, caisses populaires, and farm marketing and supply co-operatives for such purposes.

**Old Age Pensions.** The possibility that the Government might introduce a contributory old age pension plan at some time in the future led to a discussion of this subject. The advisability of such a policy, and the place agriculture should have in it, was referred to member bodies of the Federation for study, with the object of determining the wishes of farm people.

**Price Supports.** The Board agreed that the Federation should again express its concern to the Government about the dropping of the fowl price support and import permit regulations. It also agreed to make representations to the Government over difficulties which had arisen in properly administering and maintaining price supports for eggs.

### IFUC REPEATS REQUESTS

Interprovincial Farm Union Council representatives, following the organization's conference in Saskatoon, July 7 and 8, repeated its requests to members of Parliament for action on deficiency payments for grain, unemployment insurance for farmers, establishment of a board of livestock commissioners, crop insurance and amendments to PFAA.

In referring to deficiency payments on grains for the 1955-56 and 1956-57 crop years, IFUC spokesmen gave considerable stress to the urgent need for action, and emphasized that the farmers' position has continued to de-

teriorate since May, particularly in Saskatchewan and Manitoba. They made these additional points in their presentations:

- Since the IFUC submission in May, the final wheat payment for 1956-57 crop year was announced and proved to be a disappointment to the growers. This price level lends further evidence in support of the argument that farmers are carrying an impossible economic load with continued high costs and progressively lower prices.

- It has been stated that the Canadian consumer could not afford to pay parity price for wheat. At the same time, if increases in bread prices during the past two years had been reflected to the producer, rather than the bread companies, farmers would now be receiving well over \$2 per bushel for domestic wheat.

- Deterioration in the farm economy is having very real repercussions on the local (and we believe, on the national) economy, and is responsible to a large degree for the existing unemployment situation.

- Unless present economic pressures are relieved, there are indications that grain stocks will be turned into meat production. Such a course would no doubt mean that there would be little movement of cattle to eastern feeders.

### BRIEFS

The Saskatchewan Farmers' Union arranged and conducted a series of eight public hearings on the boxcar distribution question before the Bracken Box Car Inquiry. It is estimated that more than 4,000 farmers attended the meetings.

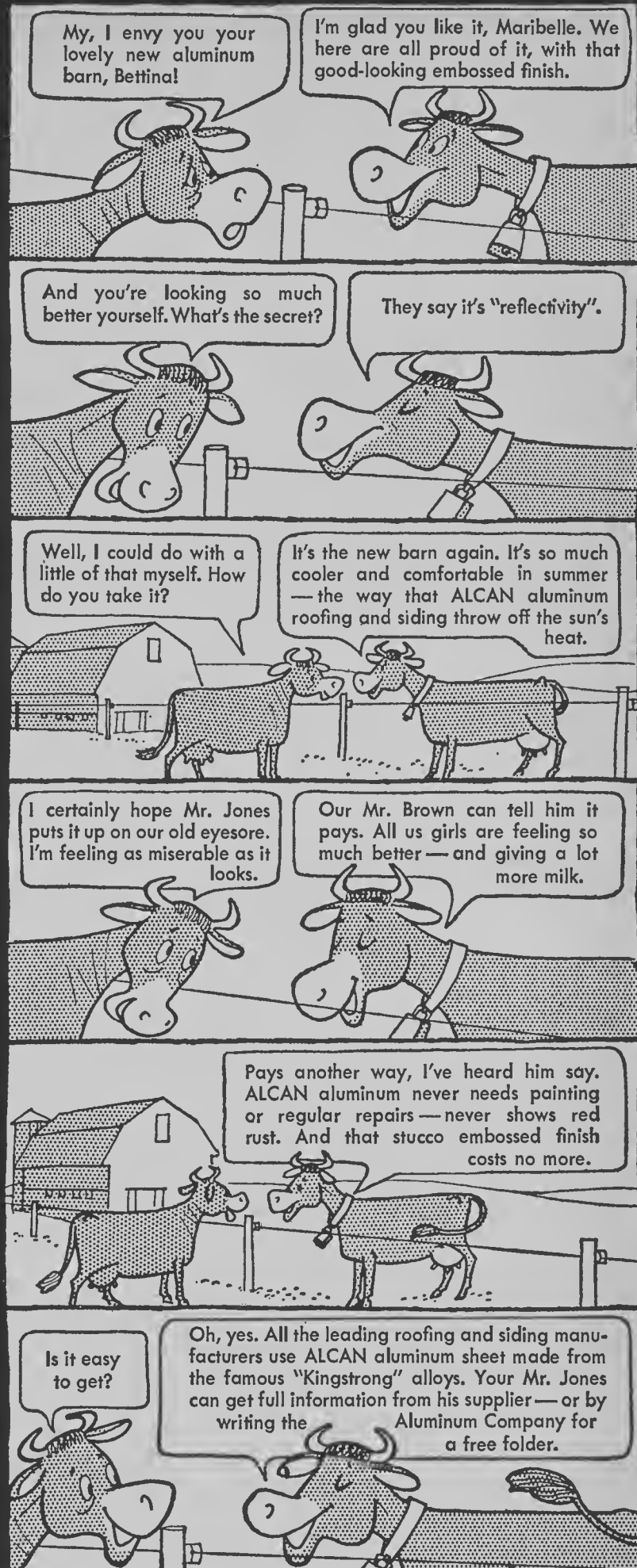
The Manitoba Federation of Agriculture has announced that S. E. Ransom of Boissevain has been elected provincial president for the ensuing year. J. Warburton of Poplar Point and D. A. McNabb of Minnedosa were elected vice-presidents.

The Alberta Federation of Agriculture has urged all eligible producers to exercise their right to vote in the second balloting for an Alberta Egg Marketing Board to take place in early August.

The Manitoba Farmers' Union requested the Federal and provincial governments to take immediate action to freeze prices of all grades of cattle at public markets at June 1 levels. They charged that there was no legitimate reason why speculators should be allowed to capitalize on the farmers' misfortune at having to increase grass cattle deliveries to markets because of the prevailing poor grazing conditions.

The Nova Scotia Federation of Agriculture has completed negotiations with members of the provincial government for the construction of the Nova Scotia Co-operative Abattoir. Douglas Curtis of Truro will be president of the board of directors of the new co-operative.

## FARM REFLECTIONS ...by ALCAN



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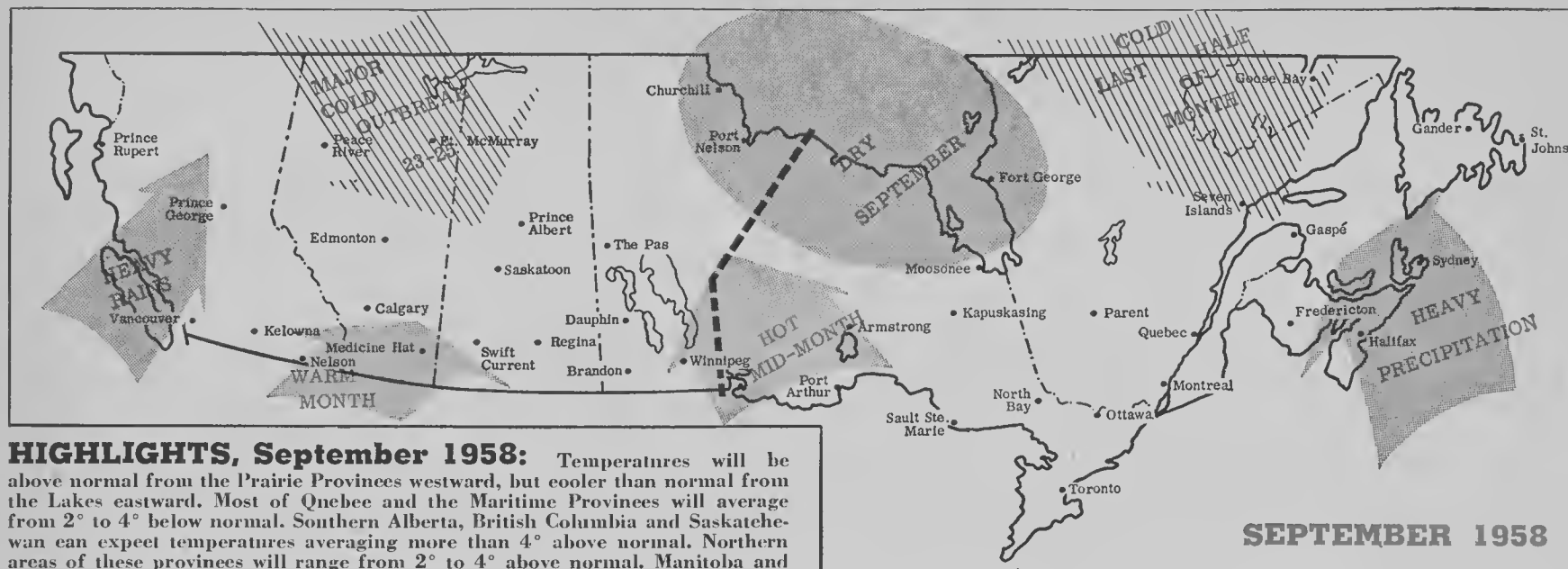
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**HIGHLIGHTS, September 1958:** Temperatures will be above normal from the Prairie Provinces westward, but cooler than normal from the Lakes eastward. Most of Quebec and the Maritime Provinces will average from 2° to 4° below normal. Southern Alberta, British Columbia and Saskatchewan can expect temperatures averaging more than 4° above normal. Northern areas of these provinces will range from 2° to 4° above normal. Manitoba and extreme western Ontario will be near normal to just slightly above. Precipitation will generally be light, with above normal moisture expected only in British Columbia, Maritime Provinces and the area immediately northwest of Lake Superior, where rainfall will range as high as 50 per cent above normal.

SEPTEMBER 1958

(Allow a day or two either way in using this forecast. It should be 75 per cent right for your area, but not necessarily for your farm.—ed.)

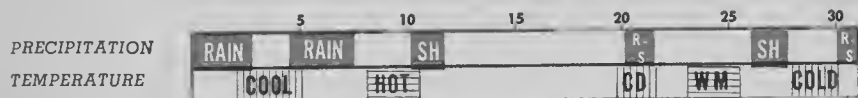
## Alberta

- First week 1-6:** Mostly cool temperatures, with no important storminess. Overnight temperatures will dip into low 40's in south to near freezing in north.
- Second week 7-13:** Unseasonably warm at mid-week, with temperatures climbing into the high 80's in the south. Showers on one or two days during the latter part of the week.
- Third week 14-20:** Scattered showers likely on two or three days at mid-week but precipitation amounts not generally heavy. Temperatures normal, except quite warm at the end of the week.
- Fourth week 21-27:** Warm at start of week, with showers on one or two days. A cool outbreak at mid-week will bring near freezing or below freezing temperatures. Possible showers or snow at week end.
- Fifth week 28-30:** Showery and unsettled at the beginning of the week becoming fair toward end. No major storminess.



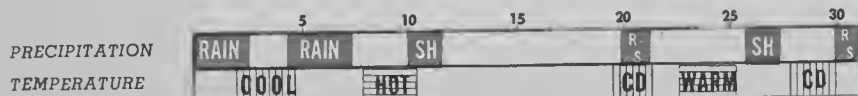
## Saskatchewan

- First week 1-6:** Chilly and wet, with temperatures in 30's overnight. Showers on two or three days early in week and toward week end. Fair at mid-week.
- Second week 7-13:** Showers on one or two days at the start of the week will give way to fair, warm weather at mid-week. More showers likely on a day or two toward the end of the week.
- Third week 14-20:** Little in the way of storminess this period. It will be mostly fair, sunny weather with temperatures generally mild.
- Fourth week 21-27:** Freezing temperatures at start of week, with showers or light snow on one or two days. Warming and clearing at mid-week, with temperatures near 70. Showers again at week end.
- Fifth week 28-30:** Showers at start of the week will give way to clearing weather. Cool outbreak last two days will send temperatures below freezing.



## Manitoba

- First week 1-6:** Showers one or two days at start, followed by cool outbreak, with temperatures in 30's. Showers and unsettled weather at week end.
- Second week 7-13:** Showery, unsettled weather early in week will give way to clearing, hot weather at mid-week with temperatures in 80's. Showers again toward week end, clearing at end of week.
- Third week 14-20:** Little in the way of important storminess, but deteriorating at week end. Temperatures generally mild, but cold outbreak and freezing temperatures will be on their way at end of week.
- Fourth week 21-27:** Cold and stormy at start, with temperatures below freezing and showers or light snow one or two days. Warming and clearing mid-week, with temperatures in 70's, but stormy at week end.
- Fifth week 28-30:** Showers at first, then clearing weather. More showers at start of October. Temperatures generally cool, below freezing one or two days.



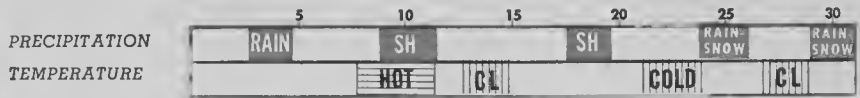
## Ontario

- First week 1-6:** No major temperature variations this period, and weather generally mild. Showers likely on one or two days from mid-week on.
- Second week 7-13:** Fair and mild at start, becoming quite warm with temperatures in 80's at mid-week with scattered showers likely on two or three days. Cool weather settling over area at week end.
- Third week 14-20:** Cool weather at start, but not severely cold. Temperatures generally in 30's. Warming temperatures at mid-week followed by rains and possibly some snow during latter half of period.
- Fourth week 21-27:** First half of week will be generally cool, with near freezing temperatures overnight. Warming but unsettled weather will dominate the latter half of week, with showers due on one or two days.
- Fifth week 28-30:** Mostly cool and unsettled; temperatures near freezing at start of period with showers or snow at end of period.



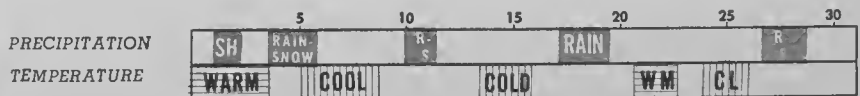
## Quebec

- First week 1-6:** Mostly near normal, daytime highs near 60, overnight lows in 40's. Showers likely on two or three days latter half of week.
- Second week 7-13:** Temperatures in 60's at start of week will climb to near 90 at mid-week, with showers likely on two or three days, mostly of local, scattered nature. Turning cool at end of week.
- Third week 14-20:** Cool outbreak at start of week, sending temperatures into the low 40's in the south, 30's in north. Showers and some snow are expected toward the end of the week.
- Fourth week 21-27:** Cool during the first half of the week, with temperatures sinking close to freezing at areas removed from Lakes. Warming during last half of week with shower activity on two or three days.
- Fifth week 28-30:** Cool and damp, temperatures sinking well down into 30's overnight, with light showers or snowflurries latter part and into October 1.



## Maritime Provinces

- First week 1-6:** Warm, showery weather. Temperatures in 70's and showers at mid-week and week end. Cool outbreak due at end of week.
- Second week 7-13:** Cool weather, with temperatures below freezing inland at start of week and into 30's in coastal areas. Showers will occur on one or two days at middle of the week.
- Third week 14-20:** Near freezing or below freezing temperatures over most of area during first two or three days. Warming latter half of week with showers due toward week end on one or two days.
- Fourth week 21-27:** Warm first half of week, with temperatures around 70. Cool outbreak at mid-week, below freezing temperatures one or two nights toward end of week. Only important storminess will move in at end of week.
- Fifth week 28-30:** Showery weather at start will give way to clearing weather at end of period. Temperatures generally in the upper 50's during daytime.



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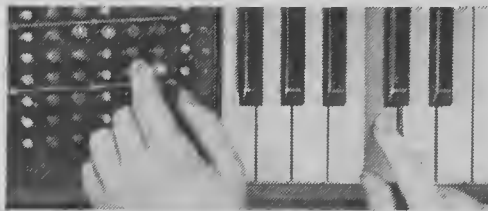
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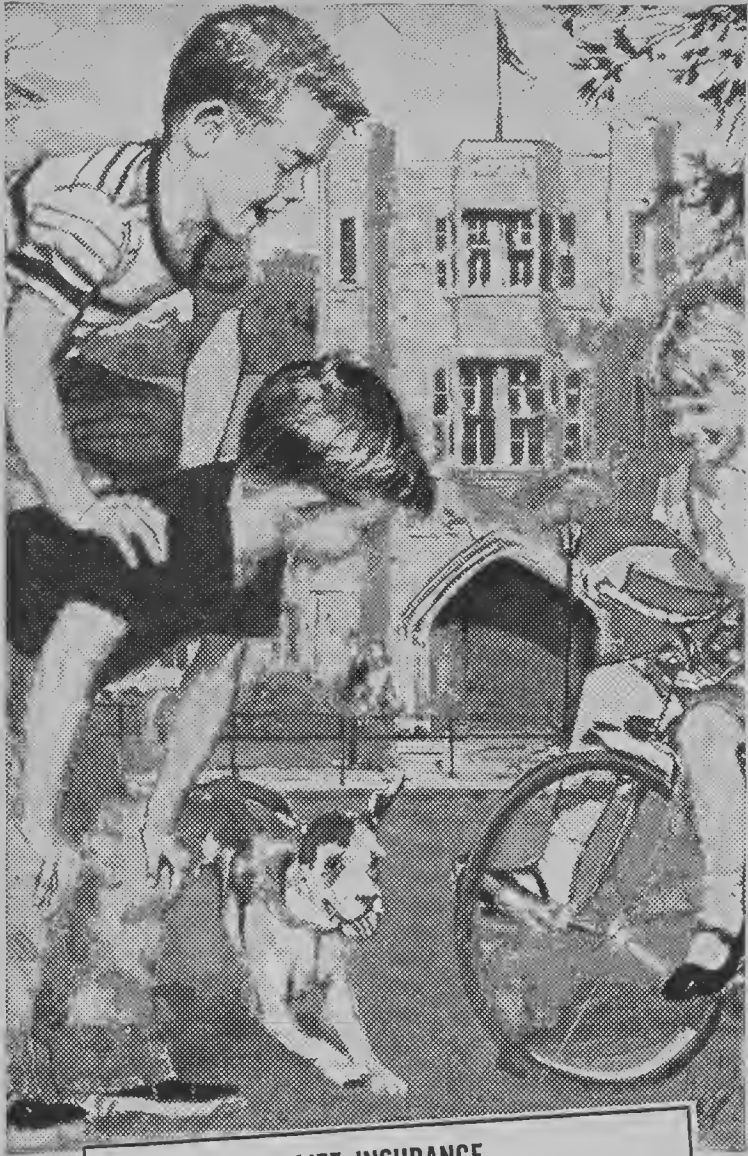
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# GUIDEPOSTS

## UP-TO-DATE FARM MARKET FORECASTS

**SMALLEST WHEAT CROP** in a decade is a certainty - Saskatchewan will be hardest hit. No shortage of supplies in prospect, however, and even with an extremely short crop, farm stocks a year hence will still be large by historical standards. Most will be held by comparatively few large farmers.

**OATS SUPPLY** also will be trimmed down from recent standards, but overall picture is not critical. Prices will be stronger, feeding less heavy and probably, if U.S. corn crop shapes up to early expectations, corn imports to Eastern Canada larger. Exports will likely drop off.

**BARLEY CROP** will be down, although Alberta, the heavy producing province, should have good outturn. Carryover from last year, while reduced from recent record levels, should insure adequate supplies. Present vigorous exports could be cut back in a pinch.

**RYE EXPORTS** to fill U.S. import quota of 3.3 million bushels practically filled first week. Other export prospects are not too bright, but with small carrying stocks and small production, prices may show a firming tendency.

**INVESTMENT EXPENDITURES** for 1958 - sometimes referred to as "catalyst of capitalist economies," at \$8.5 billion, are off only 2.2 per cent. Confidence in economy is indicated, although no boom heralded. Agriculture industries holding well.

**BUTTER PRODUCTION** in heavy June production month was 12 per cent higher than a year earlier despite generally poor pasture conditions. Stocks at July 1 climbed to 67 million pounds, 11 per cent above last July 1 figures and gaining rapidly on 5-year average of 75 million pounds.

**SKIM MILK POWDER** production, climbing hand in hand with that of butter, is up 69 per cent for first half of 1958 - dramatically reflected in stocks which, at mid-year, stood at 53 million pounds, 38 million higher than previous year.

**HOG PRICES** will soon begin to show effect of heavier supplies coming to market. Usual trend is for prices to start slight weakening now, but with the big drop around October when spring and summer crops start to market.

**FEED AND FODDER SITUATION**, while not alarming, is likely to slow down trend to heavier livestock production in Prairies, particularly for hogs. Fodder supplies will likely be scarce in large part of southern Saskatchewan.

**FLAX PRICES** have been reflecting weather conditions as drought first cut back acreage, then ravaged yields. Early estimates of U.S. crop of 31 million bushels is small by recent averages, and won't leave much for export. Flax planting being promoted in Argentina, but will be some time before this crop is marketed.



## WHAT'S HAPPENING



[Guide photos

One of the Canadian Agricultural Economics Society Workshop Groups, which met at Maison Montmorency in June. The week-long Workshop was held to consider what might be done to alleviate the "small farm" problem.

### FARM PRICES CONTINUE RISE

The index of farm prices of agricultural products, which has moved upward without interruption since last November, continued to gain during May. The May index, at 244.1 (1935-39=100), is 3.5 points above the April index of 240.6, and about 24 points above the November level of 220.2. As in almost all months since the rise began, the most important contribution to the increase between April and May was higher livestock prices. V

### AGRICULTURAL SCIENTISTS CHALLENGED

Canadian research performance in the applications of atomic energy to agriculture and biology leaves much to be desired, according to Dr. J. W. T. Spinks, dean of the College of Graduate Studies at the University of Saskatchewan. The criticism was made at the conclusion of Dr. Spinks' address to some 400 agricultural scientists at the 38th annual meeting and convention of the Agricultural Institute of Canada, held at Acadia University, Wolfville, N.S., in late June. Dr. Spinks was one of several Canadian scientists who addressed the meetings on the theme "Nuclear Energy and Its Agricultural Implications."

Dr. Spinks reviewed in some detail the practical applications of atomic energy to agriculture and biology which have been uncovered to date. He indicated that with the aid of radioactive particles (isotopes), scientists are now able to study the action of insecticides in insects which assists in the battle to combat a large num-

ber of destructive pests. Radioactive particles are also used to measure the uptake of chemical fertilizer by plants, to study mineral deficiencies in animals and to bring about genetic changes or mutations in plant life. This latter use is of considerable importance to the plant breeder, because it can speed up the supply of new mutations and bring forth at least a few which give agriculturally desirable characteristics. An example mentioned was the production of stiff-strawed varieties of barley by Swedish workers. Dr. Spinks stated that any one of these lines of research is potentially capable of leading to improvements worth millions of dollars annually.

In his concluding remarks he had this to say: "In spite of the recent growth of industry, agriculture is still of great importance and, as overseas markets expand, or our population expands, it could also expand in volume and value. Our interest in agriculture is indicated by the fact that agricultural research has always been well supported at all levels. It is also true that Canada is one of the top nations in atomic energy development and, in the light of these two facts, I think that our performance in the application of atomic energy to agriculture and biology leaves a good deal to be desired. A few years ago we could afford to wait and take things slowly, but today one has to keep to the forefront if one isn't to be lost in the shuffle, or lose a great many of our bright young researchers to outside countries. It isn't just that we are not cashing in on the work that has been done, but we do not have the informed opinion to see that work is done in this field that should be done." V

(Please turn to page 49)



Agricultural Institute delegates assemble outside University Hall, before one of the sessions.

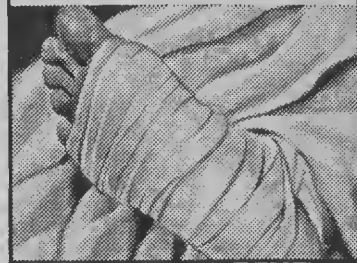
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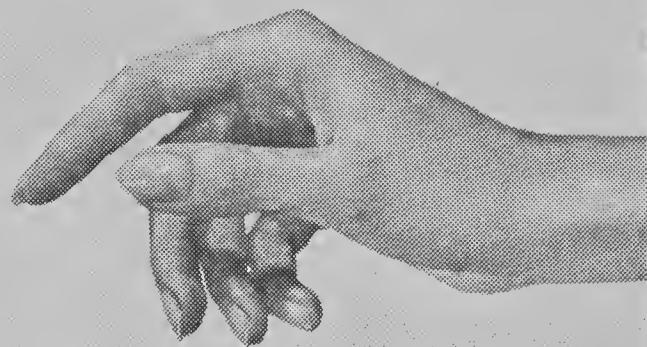
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Manager Roy Snyder of the Waterloo unit with one Charolais and four performance-tested Hereford bulls (both horned and polled) purchased in the U.S.A.

# Top Bulls for Everyone

*Are farm bulls on the way out? A.I. is bringing the best bulls even to the smallest herds now*

by **DON BARON**

**J**UST as a smoke-belching 4-wheeled monster chased the faithful old work horse right off the farm, a generation ago, a new development is threatening another farm animal. The once-indispensable herd sire is falling victim to a couple of modern miracles—artificial insemination, and its recent refinement, frozen semen. And no wonder—when a telephone call brings, right to the farm, the services of outstanding bulls of just about any breed.

Since the early 1940's, when the first of the present units in Ontario was established, the rise of A.I. has been phenomenal. In 1957, 337,057 cows on 40,000 Ontario farms were inseminated artificially, and in the first few months of 1958, business was 15 to 20 per cent higher than that again.

The lure of A.I. has been hard to resist. More and more farmers are shipping their bulls to market, replacing them with a cow or two. This is not only improving their herds by the use of better

sires, but also expanding their cow herds, and their income, at little extra cost.

Most of the farmers cashing in on these benefits have been located in southern Ontario, where a heavy concentration of cattle justified the expense of the big bull batteries required when the units were established. Now, the discovery of a way to freeze semen so it can be kept for months (or even years) before being used, has introduced a new dimension to A.I. It has eliminated the need for every unit to purchase and maintain its own bulls. Any group of farmers anywhere can organize a unit with little more initial expense than the cost of buying a deep-freeze cabinet and hiring a technician. Then, they can fly in semen from Ontario or elsewhere. As a result, new units are springing up through the Prairie Provinces (25 units got



[Guide photos

Each tray holds 540 vials of frozen semen. There can be about 30,000 vials in the entire freezer.

20,000 vials of semen from Ontario last year) and in the northern areas of Ontario.

In the Maritimes, too, bulls have been brought together into a central unit at Fredericton, where freezing equipment was installed. Now semen is shipped from there to technicians throughout the area.

**F**ROZEN semen has brought other advantages too. It has enabled units to offer members semen from any bull any day of the year, so they can carry on specific breeding programs. It has greatly expanded the possible use of any single bull (one bull theoretically can sire up to 20,000 calves a year). It permits a bull to live, in effect, even after he is dead.

"A.I. is having a tremendous beneficial impact on the dairy industry," says Ontario's Livestock Commissioner, W. P. Watson, "and it has gone further and revolutionized the field of animal breeding."

But it has overcome some formidable opposition to work some of its wonders.

While farmers have reveled in its benefits, breeders of purebred dairy cattle, who once sold bulls to these farmers, (Please turn to page 31).



Technicians Stuart Crane and Wilbur Shantz plan daily route by morning telephone calls from farmers.

# Crossbreeding Can Increase Profits — BUT IT WON'T SOLVE ALL YOUR PROBLEMS



Hereford-Highland crosses at Manyberries Range Experimental Farm, Alta., show promise. Note the Hereford white face with the long Highland hair.

ONE-AND-A-QUARTER billion bushels more corn on 30 million fewer acres—that was the war record of hybrid corn in the years 1942, 1943, and 1944! But, like John Paul Jones, the corn hybrids had just begun to fight, for at that time, they comprised only 60 per cent of the national corn acreage. Today, they have practically taken over all commercial corn plantings in the United States! Impressed with this feat, commercial livestock and poultrymen have been trying to duplicate it, and with some success. Carefully planned crossbreeding has developed promising new types for some particular need or area. And as far as market animals are concerned, it is pretty well conclusive now that certain hybrids produce more offspring than the purebreds they sprang from, and that these excel in weaning weight, performance and appearance.

Crossbreeding is the mating of purebred sires of one established breed to females of another. Although, technically speaking, the term refers only to the first cross of purebreds, it is also applied to the crisscrossing of two breeds, the rotational crossing of three or more breeds, and the crossing of purebred sires with grade females for herd or flock improvement.

The theory behind this crossing is to obtain the benefits of heterosis, or hybrid vigor—a sort of physiological “shot in the arm” known to develop from the mating of two genetically compatible individuals that have different characteristics. In most cases, the wider the diversity of origin, the greater the increase in performance. Hybrid vigor can also make the crossbreds superior in size and other bodily characters than either of the parent breeds, even though the latter are of a similar type. These animals (crossbred steers for example) often have little value as breeders, but are generally fine market specimens and are developed especially for that purpose.

Another reason for crossbreeding is to produce a distinctly new breed, or even a new animal, which combines desired features found in both types. The Santa Gertrudis breed of cattle combines Brahman, Shorthorn, and Hereford blood for the specific purpose of producing a breed of range cattle that will thrive under the heat, drought, and insect pests of the Texas plains. A good example of a hybrid animal, of course, is the mule, which has the

strength of a horse and the stamina of a donkey. And nobody who has stood behind one will deny that a mule has vigor.

THE secret of a successful cross in both cases lies in the words “genetically compatible,” which poultry breeders now call “nickability.” That is to say, the hereditary factors (genes) which make up the breed of each parent blend with, and complement, each other when the two breeds are mated. For instance, in experimental crossing of the Brahman and Hereford breeds at the Range Experimental Farm, Manyberries, Alta., the crossbreds were heavier at birth, weaning, 18 months, and 30 months of age, than the purebred Herefords. But the calves of a Hereford-Buffalo cross were definitely inferior. The resulting animal, the “Cattalo” also contained a sterility factor which has plagued the experiments ever since they started. In other words, the gene interaction was unfavorable—the two types have poor nickability.

One case where gene interaction could be expected to be favorable, but hybrid vigor somewhat reduced, is in the crossing of inbred lines of the same breed (line crossing). However, even lines within the same breed vary in performance and crossing ability so that a surprising amount of hybrid vigor can be obtained by crossing carefully



Cattalo, a cattle-buffalo cross, produced this poor type of cow. Sterility is another Cattalo problem.



This black and white range bull is an example of the good herd developed by crossing Hereford bulls and Angus females on the Sears farm in Alberta.

*Crossbreeding of animals for hybrid vigor or special purposes can bring spectacular results in first generation. But where does breeder go from there?*

By **CLIFF FAULKNER**

selected lines. This has been done successfully with various strains of White Leghorns (nicked chicks) to produce highly specialized meat or laying birds. Long time experiments at Colorado A. & M. College, under Dr. H. H. Stonaker, on the effects of inbreeding and hybridizing within the Hereford breed, show that line hybrids produce more and bigger calves than inbreds.

BIGGER calf crops and better gainers add up to bigger profits. In fact, breeding authorities are agreed crossbreeding can increase a commercial stockman's production by 10 per cent. Then why don't more of them practice it? One reason is that crossing can lead to an assortment of colors—especially in beef cattle—which destroys herd uniformity. Buyers are inclined to shy away from odd colors because they suspect mixed dairy breeding, culled from a bunch of small farms. This is particularly true of the feeder-buyer who relies a good deal on conformance to predict an animal's fattening qualities. But the biggest drawback from the stockman's view is that crossing can become pretty complicated. Getting the first generation is easy and profitable, but where does he go from there?

Hybrid vigor has one remarkable feature which makes crossbreeding for commercial production a bit more involved than the simple crossing of one breed with another. This vigor (which chiefly shows as higher fertility and lower mortality) reaches its peak in the first generation, and then rapidly disappears again under inbreeding. The “shot in the arm” must be continuous, and it should vary, or rotate, from one breeding to another, for there is no one breed of any species that excels in all desired qualities. To the breeder, this means separate breeding fields and careful planning to avoid herd “mongrelization,” or dropping back to where he started.

WHAT would constitute a good crossbreeding plan? This would depend on what type of stock you carried and what goals you had in mind. If a cattleman with a herd of Hereford cows was to breed them to an Angus bull, he'd have a batch of calves that were white-faced, black-bodied, and hornless. The males could be raised and sold as good market steers, and the hybrid females retained for breeding. They could be bred to a Hereford bull, and their (Please turn to page 33)



# WILL AN ACCIDENT COST YOU YOUR FARM?

*The Ontario Workmen's Compensation Board  
saves many from being put out of business*

by ARTHUR D. STAUBITZ

**C**AN any farmer today afford to be without the protection offered by his province's Workmen's Compensation Act? Take yourself, for instance. If you employ help, what are the odds you'll "get by" without having a bad accident on your farm within the next 12 months?

In both 1956 and 1957, more than 25 per cent of Ontario farmers who were covered found it necessary to put in claims because of accidents. That's right—2,267 farmers had applied for coverage to Dec. 31, 1956, and 584 of them needed it badly within a few months. The same proportion held true for 1957 after 111 additional farmers applied for coverage. This addition raised the total registered with the Board to 2,378 by the end of last December.

Certainly, white-haired Dan Forgie would be out of business today if his young hired man hadn't been protected under the Act. "It was a lucky day for me when I sent in my application and fee," this farmer says, recalling the terrible calamity in his hay field. "Coverage cost me only \$60, but it cost the Compensation Board more than \$27,000 to look after poor Alan Chalmers properly."

This accident occurred just previous to a violent thunderstorm which came rolling up from Georgian Bay. Dan Forgie was driving the tractor, and Alan was on the windrow pickup hay baler, which had been "acting up."

For the third time in 10 minutes, Alan had shouted for Mr. Forgie to stop. Both were watching the approaching clouds anxiously.

"What is it this time?" old Dan asked testily.

"I don't know," confessed the 29-year-old hired hand as he picked up a spanner. "But something's sure wrong. I don't know yet if it's in the plunger or the feeder." Running a hand through his blond hair, Alan knelt down and made an adjustment. "Start her up again," he said.

Dan Forgie did so. A moment later he heard a scream of pain . . .

"I can hear it yet," the farmer stated a few hours later. "It happened so fast. The doctor says they'll have to amputate his left arm just below the shoulder."

"You can be sure of one thing," a news reporter told him sympathetically, "the Board will see that Alan gets the best there is in medical and surgical care."

For this particular accident, the Board paid \$1,112 in doctors' fees, hospital bills and for an artificial arm. Moreover, Alan Chalmers was disabled for 35 weeks, for which he received \$1,100 in lieu of wages. The young man will receive a pension for the rest of his life, guaranteed by over \$25,000 set aside by the Ontario Board for this purpose.

"Suppose I hadn't applied for protection," Dan Forgie said to a neighbor, shortly after the accident. "I'd be ruined today. It makes me sick just to think of it!"

**D**AN had mentioned the coverage costing him \$60. Actually, cost of coverage under Ontario's Compensation Act is \$2 per \$100 of annual payroll, up to maximum earnings of \$5,000 for each workman, including, under certain conditions, board and housing. A farmer doesn't have to employ year-round help to be eligible. He can cover members of his own family if they receive a stated wage. By special request, he can even have himself and his wife covered along with his other employees.

One strong point in favor of being covered under the Act is that the farmer cannot be sued by any employee for claims for any accident which might occur. The entire matter is in the hands of the Board, and the Board is in a far better position than any individual farmer when it comes to paying the necessary medical, surgical, hospital, rehabilitation or mortuary expenses.

On the other hand, the farmer who does not apply for coverage leaves himself wide-open for lawsuits. Here is an actual case:

Ross Phalen, a central Ontario farmer, and his hired man Paul Zimmer, were splitting blocks of wood. Zimmer would bring a block and set it on the stump, whereupon Phalen would swing the ax and split the block. All went well until one thin piece began to topple, after Zimmer had set it up. Instinctively, the hired man's hand shot out to adjust it before the ax should swing. He was too late. The ax cut a deep gash in the back of his hand.

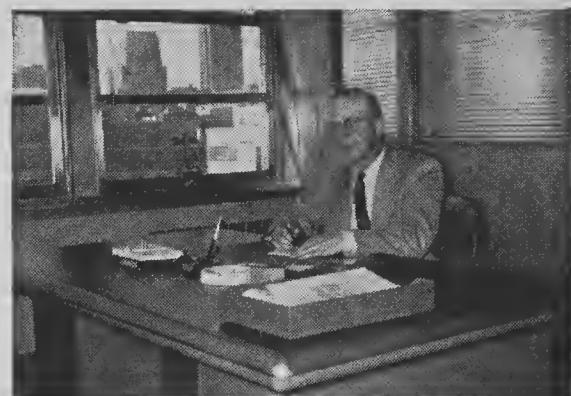
Obviously, it wasn't the farmer's fault. The hired man had reached out while the ax was on the way down. The farmer rushed his hired man to the local hospital and paid all expenses. Afterwards, he said to Zimmer: "As soon as you're out of hospital, come back to the farm and rest up till you're able to work again."

(Please turn to page 35)



[Author's photos]

*Workmen's Compensation Building in Toronto. The Board is wholly financed by Ontario's employers.*



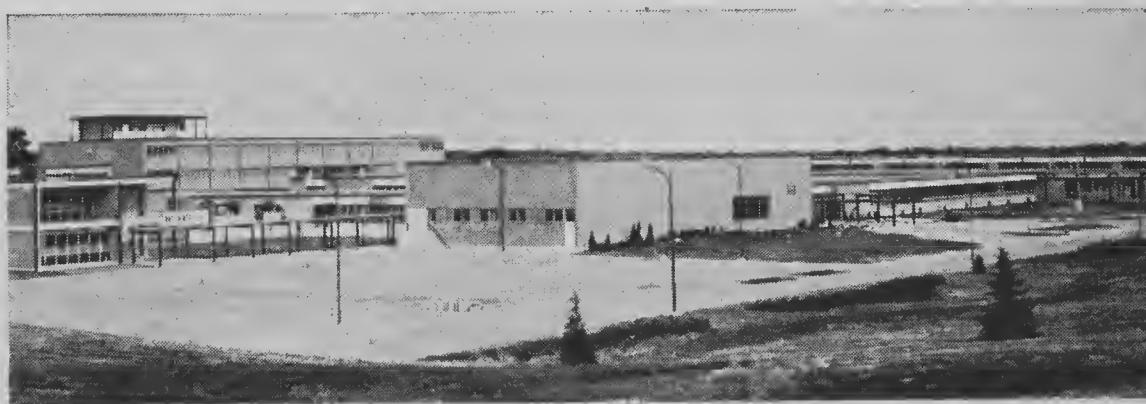
*George Beach, executive liaison officer of the Board, is well known among farmers in Ontario.*



*A farmer may apply for coverage for his wife, and himself, at the same rate as his employees.*



*Members of farm families are not covered, unless paid a stated wage, and recorded by the farmer.*



*This is the new Workmen's Compensation Hospital and Rehabilitation Center, which was opened recently close to Ontario's Highway 400. It replaces a center located in former military buildings at Malton.*

# FEUD IN THE CHILCOTIN

by  
C. V. TENCH



*Len saw what appeared to be a wisp of smoke. He spurred the horse toward it.*

TWO saddle horses stood in the lee of a great sheltering rock. Framed against a fading sky were the figures of a man and a girl, watching dusk drink up the tinted shadows that crept across the peaks and valleys of the Chilcotin ranching country. "I can hardly realize that this is good-by, Len," Joan Houlden was saying brokenly. "But . . . perhaps it will make things easier for all of us."

"Easier?" Len Hall's lips twisted. Grasping her shoulders, he turned her to face him. "But, Joan, must it be good-by? Can't you . . ."

"No," Joan interrupted. "I can't forsake Granddad. I wonder, though . . ." She stared up at him eagerly. "Oh, Len! We've never yet given my grandfather a chance. D'you suppose, dear, that if he knew how we feel . . . if we told him . . ."

"That's a thought," Len cut in, equally eager. "He's stubborn, but . . . well, we can at least try. I'll ask him right away."

Mounting their horses they rode hand-in-hand and wordlessly along the dim trail that led down into the valley, to where the shabby outlines of the Houlden ranch house loomed in the twilight.

Joan mentally compared its neglected appearance with the Hall ranch house—Len's home. The Hall ranch house was the newest, finest and most modern home in the Chilcotin district. The homes were symbolic of the Houldens and the Halls.

Plagued by misfortune after misfortune, the Houldens, once the proudest and most respected of the pioneer families who had settled in that part of British Columbia, were now reduced to dire straits. Only old Martin Houlden, the grandfather, and Joan remained. The prosperity of the Halls, built upon the foundations laid by old Mark Hall, had increased with the passing years.

The estrangement between Mark Hall and Martin Houlden was of such long standing most people had forgotten what caused it in the first place. Joan herself did not know. Hall was a name never mentioned in her grandfather's hearing. The Halls had meant nothing to her until Len, old Mark's grandson, had joined her one day when she had been resting and enjoying the view from her favorite look-out.

From Len she learned that old Mark Hall was a somewhat eccentric old man of powerful personality who, after the death of his wife, had refused to remain at the new Hall home with his married daughter, Len's mother. Instead he stayed hermit-like, in the building that had been the Hall's first home in the Chilcotin, surrounded by a weird collection of things he regarded as treasures.

AS Joan and Len approached the Houlden ranch house they saw it was in darkness except for a patch of light in one window.

"That's the window of Granddad's den," Joan whispered. "His door will be open. I'll wait outside."

Len nodded, slipped his arms about her, held her close for a moment, then strode into the house.

The study was a high-ceilinged room lined with books. A reading lamp stood on a table, close to which Martin Houlden dozed over a newspaper. At the sound of Len's approach he glanced up.

"Is that you, Paul? Has Miss Joan come in yet?" Then he saw Len.

"Mr. Houlden?"

"I am Martin Houlden. What can I do for you, young man?"

"My name is Hall," Len stepped forward. "Pardon this intrusion, sir, but I must have a few words with you."

Martin Houlden gripped the arm of his chair. "Am I to understand that you are Mark Hall's grandson?"

"Yes, Mr. Houlden. I'll come to the point at once. I'm in love with Joan, your granddaughter. She returns my feeling. We wish to marry. Because of the unfortunate relations that have existed . . ."

"Stop!" For an aged man, Martin Houlden came to his feet with surprising agility. "Where is Joan?" he asked sharply.

"Here, Granddad!" Anxiety had brought Joan into the hall. She walked slowly forward.

Martin Houlden stared at her gloweringly.

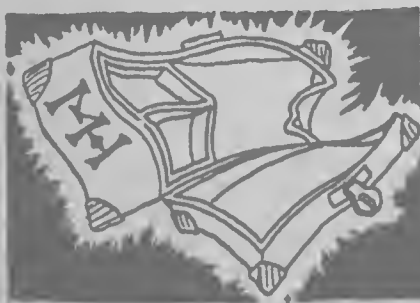
"Well, what have you to say about this?"

"I love Len."

"Love him!" Martin Houlden swallowed convulsively. "Love him! Love is not born overnight. That means you've been meeting this young man for some time, and without my knowledge."

"Yes," Joan's eyes held firm. "There's no just reason why I . . ."

"No just reason," Martin Houlden interrupted harshly. "Do you know that the grandfather of this young man and I have been enemies for years? Do you know that old Mark Hall has bought up all the mortgages held against the Houlden lands? And now I have reached the uttermost end of my resources. In a few days, if he so wills, the law will empower Mark Hall to oust us from this property. Mark Hall and his progeny will be what he has always wanted to be—the most powerful family in the Chilcotin." (Please turn to page 37)



Illustrated by D. C. BRESTLER

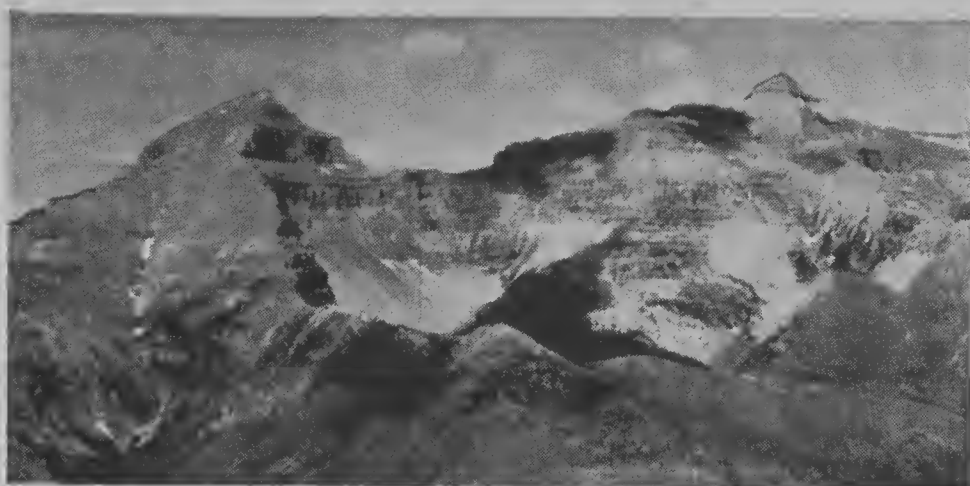




CARL BREWER and BERT T. SMITH

*tell a story of out-of-the-way places and memories of the Old West that come to mind.*

Photographs by BERT T. SMITH



*"Into the solitude of mountains, so high they seem to be painted against the sky."*

# Off the Beaten Track

WE have wandered from the beaten track and into the past and the far off—into the solitude of the mountains, mountains so high they seem to be painted against the sky. Each tree seems to have been planted by a Great Hand—the same Hand that leads the river on its way where it rushes over rocks, falls over a cliff face, roars through a canyon, and then drifts lazily, eddying and swirling, only to roar again over rocks to the faraway sea.

See that green mountain meadow with fringe of "quakers" and pines, and those lofty spruce trees swaying in the late afternoon breeze? The silence is so great that it's a roar to the ears—broken only by the splash of a trout in a nearby lake and a woodpecker on that dry pine. The sky itself has that lazy-look of an Indian Summer sky.

There's a mule deer buck feeding peacefully, but alert, in the meadow. Everything is still in that mountain picture-land, as it has been for centuries. But now, why is that buck looking across the meadow into those trees where that trail comes in? From down the river—listen! What's that noise? It's the sound of bells and shod hooves on the rocks, squeaks of leather and, now and then, a snort. It's a pack string. Two riders swing onto the meadow and go on down to the end of the lake, where they stop. Soon the horses are loose and rolling in the grass to get the caked sweat off their backs—and, at last, to graze among the mountain flowers and tall grass.

There's smoke curling up from the camp now, while a tepee stands white against the deep green fir trees. One of the fellows—the one with the buckskin coat on—is heading to the lake with a fishing rod in hand. The other one is putting water on to boil over the crackling fire. By the time the aroma of coffee fills the air, the fellow in the buckskin coat is coming back with a shiny silver and red cutthroat trout, which is soon in the pan! That's rice boiling in the other pot there. The fellow wearing the buckskin jacket is sitting on a pack-box. He's searching, with a set of field glasses, the rocks on that nearby peak for a mountain goat or a grizzly. Soon the fellow who's cooking says, "Come on, pardner, and eat while it's still hot. Have some coffee that's hot, too—'n powerful!"

There's a chill in the air tonight. "Well, I'm gonna turn in early. She was a long day to this camp, but tomorrow we'll just fish an' snoop around a little and let the ponies fill up on this good grass."

SOON twilight has fallen and the camp is in stillness. There's a breeze blowing through the pines and the roar of that faraway river serenades us to sleep. The tinkle of a bell as a pony shifts his position—that's all! Maybe a few hoots out of that wise old owl up there in that tall spruce tree by the lake. He's keeping watch over the forest as Mother Nature lays down her black cloak of night.

I drift to that meadow many a time to dream a little. The camp is different this time! Instead of

mountains, it's the foothills and a sea of grass. The camp is a chuckwagon with a cook fussing around the fire, and cussing a little at the dust and the heat. The roar you hear now is from that herd of cattle you see strung-out over that round-topped hill there—grazing and slowly moving along to the bed-ground. There's a "yip" and "kiyae" from the riders as they swing the dogies onto the flat. Some of the cowhands stay with the herd while the remainder of them lope into camp. They are careful, though, to slow down when they see the "cookie" looking their way!

After they have their horses turned loose, the wrangler corrals them and the wagon-boss catches-out the night horses for the boys who will go on guard that night.

Soon the riders are gathered around, supper finished and the fellows sitting on their bed-rolls, or what have you. If you listen close you can hear the talk of the day.

"Did you see ol' Buster sunnin' his moccasins when that zebra dun bogged his head this mornin'?"

"That badger-hole-huntin' cayuse I rode—I'm gonna swap him to the first Siwash who comes along, ridin' a squaw-horse—couldn't make any mistake, that's for sure!"

"Say, Slim, what were you thinkin' about this mornin' when you tied onto that spotted steer? He sure busted you wide open. Must be that school marm at Deep Creek you was thinkin' about!"

Old Billy, with the weather-beaten face, is telling one of the other young hands, "Say, when I worked down in Texas for the 101 there was a feller . . ." On and on the talk goes 'til at last the camp is quiet and the cows, not too far distant, are bedded down.

The stars are out and you can almost reach up and touch them—they seem so close! It's night time in the hills and another day is over with—another page of history has turned. For you and I to see it, we have to dream a little and thumb through the pages—pages written in the dust, heat, smoke and wind. The pages are the hills and the prairies! A history that will never be repeated—the Old West, it's gone but yet still with us. Near us always, yet so far away—silenced forever. But, if we listen, we can still hear it—the bawling cattle, thudding hooves, gunshots, Indian yells. It's all there, but it's gone!

ONE look at the country, and the plowed fields, the fences and the buildings disappear! Buffalo trails are all that's left. But wait! On that knoll are Indians—hundreds of them on painted ponies of all colors. Eagle feathers waving in the wind. The feathers on that warrior's lance blowing in the wind—the Plains Indian in all his splendor. He's gone, too, but yet he's still there—riding over those hills!

What do other people think about—truckdrivers, storekeepers, lawyers, and so on? Don't they miss something? When they (Please turn to page 36)



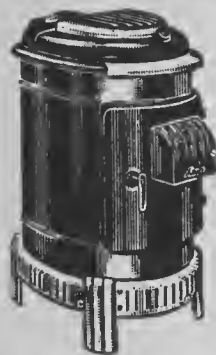
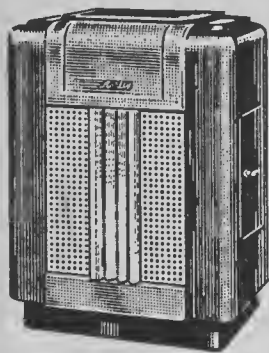
*"The river rushes over rocks, falls over a cliff face, roars through a canyon, and then drifts lazily . . ."*

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**HOLDS FIRE ALL NIGHT**

# Stretching the Hay Supply

*Dr. J. M. Bell, head, Animal Husbandry Department, University of Saskatchewan, has prepared this pertinent information for farmers who are faced with limited roughage supplies owing to drought*

**W**HEN roughage supplies for cattle are limited, farmers are faced with reducing herd numbers or utilizing other feed resources in order to carry on until the next crop year. Everyone recognizes that hay, pasture and silage represent the mainstay of the cattle and sheep industries, and that the ruminant is specially designed to digest roughages. However, not everyone knows how little roughage a cow can get by with, nor the comparative values of grains and roughages when used for cattle feed. The following questions and answers may serve to clarify some of these points.

**Q.** How do grains and hay compare as sources of protein and energy?

**A.** The values in Table 1 illustrate typical examples and show that, as a rule, grains contain more energy (total digestible nutrients; T.D.N.) and more protein than do hays, legumes possible excepted. This means that substitution of grain for part of the roughage is likely to improve the protein supply. Furthermore, because of the higher energy content of grains, each 100 lb. of hay could be replaced by 60-75 lb. grain without lowering the plane of nutrition.

Table 1

Feed	Per cent digestible protein	Per cent total digestible nutrients
Brome hay	5.0	50
Oat hay	4.9	47
Alfalfa hay	10.5	50
Oat straw	0.7	45
Wheat straw	0.3	41
Barley	10.0	78
Oats	9.4	70
Wheat	13.3	81

**Q.** How much can one afford to pay for hay?

**A.** The answer to this question will vary from farm to farm depending on quality of livestock, general relationships between market values and feed costs, and so forth. For most purposes, however, hay prices should be assessed in relation to prices for grain.

The values in Table 2 show the costs per ton of average quality hay against the corresponding values per bushel of grain, also of average quality. For example, if hay is available at \$20 per ton and feed barley is available at 60¢ per bu., the grain would be the best buy since 60¢ is below the 67¢ maximum shown in the table.

Table 2

Price/ton	Price per bushel		
	Oats	Barley	Wheat
\$15.00	.33	.51	.75
20.00	.44	.67	.98
30.00	.66	1.02	1.50

**Q.** What is the minimum amount of roughage that a cow needs?

**A.** Digestive disturbances often occur when too little roughage is fed, but in extreme cases of hay shortage as little as 4 to 5 lb. per day for a mature cow will likely maintain rumen functions, that is, provided that proper care has been taken to supply the necessary minerals and vitamins in the ration. It is important to remember that hay, silage or green pasture is usually relied upon to provide vitamin A. Straw, poor hay or cereal grains supply no vitamin A, so this must be provided to prevent abortions and to increase disease resistance.

**Q.** How can vitamin A be supplied in the absence of good hay?

**A.** Vitamin A is available in natural products and in synthetic forms. The preferred source for cattle receiving limited quantities of poor roughage is dehydrated alfalfa meal or dehydrated cereal grass. A cow requires about 50,000 I.U. (International Units) per day. Hence, half lb. of good quality meal will provide the entire requirement, and it also supplies other valuable nutrients. Everyone should be aware that there are great variations in prices of vitamin A products being sold. Vitamin A needs of a cow can usually be met with alfalfa meal at a cost of 1¢ to 2¢ per day for 50,000 I.U. of the vitamin. Some products now being used by livestock men cost at least six times this for the same amount of vitamin.

Synthetic vitamin A supplements can sometimes be obtained on request from feed manufacturers at competitive prices and in a suitable form for farm use.

**Q.** What are the consequences of substituting straw for hay?

**A.** In some cases there may be sufficient straw on hand to augment the hay supply. Oat, barley (smooth-



Dr. J. M. Bell

awned or awnless) and wheat straw can be fed in high proportions to wintering cattle along with top quality hay. However, with limited good green hay, the danger of protein, minerals and vitamin A difficulties increases, and appropriate supplements should be used to correct the deficiencies. (See Saskatchewan bulletin No. 134 "Beef Cattle Nutrition.")

Some caution should be observed regarding the use of certain feeds that may be available. Flax straw is of limited value as a feed even if supplemented. It should not be fed if it contains many immature seeds unless it has been tested for toxicity. Rape-seed straw and screenings have been known to cause some trouble, and so should be used in limited amounts. Rye straw has practically no feeding value. Black weed seeds, especially mustards, should be finely ground and used sparingly along with good grain, if used at all.

**H**ERE is an example of how one might proceed in utilizing limited supplies of hay. Table 3 shows example rations for a 1,000-lb. beef cow, in calf, showing various alternatives with ground grain for providing the daily energy needs when good hay is available. Allow minerals in addition.

If oat and barley straw is available to use along with hay, it will provide some of the energy requirements for older classes of cattle, but straw contains very little protein, few minerals and no vitamin A. Full feeding mature pregnant cows on straw requires the use of about 2 lb. per day of a 32 per cent protein beef cattle supplement, or its equivalent, in order to avert heavy calf losses in the spring. The use of protein supplements should be scaled in accordance with the amount of straw and the quality of hay used. Nutritional needs are more critical with young growing animals and during pregnancy.

Table 3

Roughage allowance	Oats	Grain allowance per day		Wheat	Dehydrated Alfalfa meal
		Barley			
Full feed 18 lb./day	None	None		None	None
Half feed 9 lb./day	7 lb. (10 qt.)	or 6½ lb. (6 qt.)	or	5½ lb. (3½ qt.)	¼ lb./day
One-third feed 6 lb./day	9½ lb. (13 qt.)	or 8½ lb. (8 qt.)	or	7½ lb. (4½ qt.)	½ lb./day







Mr. Fred C. Strate, of the McIntyre Ranching organization of Magrath, Alberta, agrees with Bill MacLeod, and regularly installs new Champions in all engines used on the 64,000 acres under his supervision.

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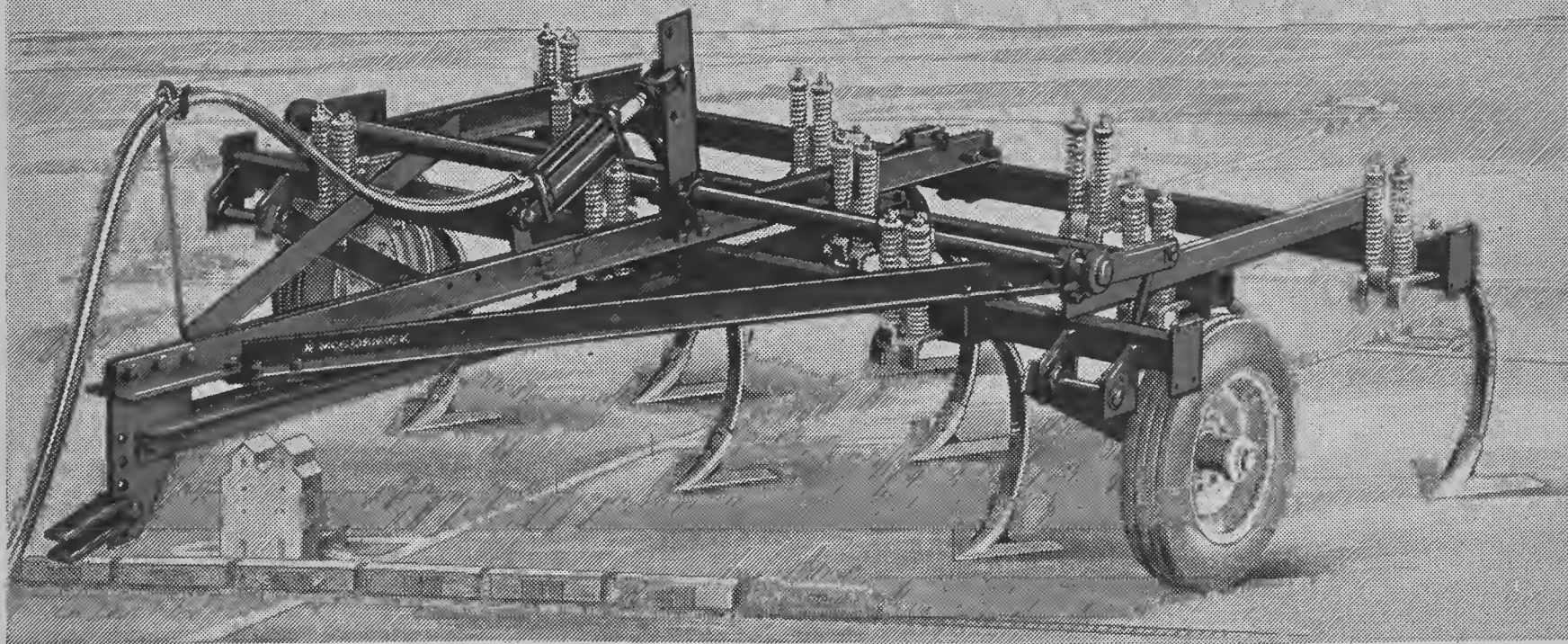


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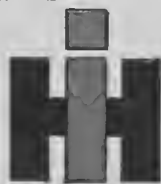
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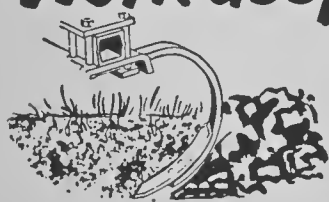
Heavy-duty, all-welded steel box frame is built like a battleship. Exclusive patented clamps hold shanks to their work with never a waver. Boron steel shanks boast sinew and stamina that defies hard and rocky soil conditions. And yet, the No. 50 is a dream to handle. Hydraulic remote control

makes raising, lowering and adjusting almost push-button operations. With a flick of the finger you're set to mulch the surface, slice off weeds or bust the hardpan. There are sizes to suit every farm, every farm tractor—from 7-foot to 11-foot basic widths, with two 2-foot extensions for each end if required.

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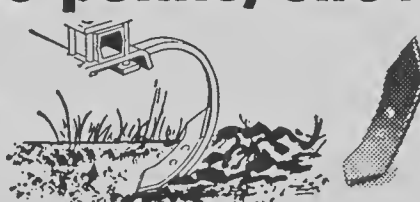
**Work deep or shallow... use points, shovels, or sweeps**



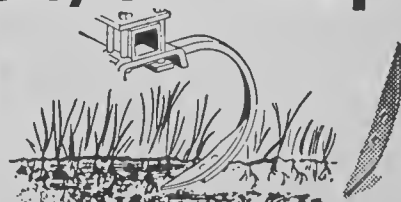
**CHISEL 12 INCHES DEEP.** The No. 50 equipped with points breaks up hardpan, improves soil drainage, lets crop roots grow deep.



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## Rural Route Letter

HI FOLKS:

People always claim to admire horse sense, but only the horse has brains enough to adopt it as a way of life. Trouble is, nowadays most of the horses are gone from the farm, and the guys who make these machines that took their place haven't enough horsepower sense to make up for the loss. Which is my way of explaining why I'm sitting here with my leg in a cast, when I should be out taking the second cut of hay.

I blame the whole thing on that new tractor I bought. Man alive, when you bang 'er into road gear she just takes off like a scared jackrabbit! Come to think of it, a bit of guilt belongs to the Municipality too. They used so much fill on that new grade past my place I have to make like a mountain goat to get up on top.

Seeing as how we're paying for this new road in our taxes, I figured I might as well use it as a short way home to lunch. Well sir, I sailed out the field one day as sweet as you

please, but when I got to the road I saw the shoulder was a bit steeper than I thought, so I gunned the motor to give me the extra zip I needed. The last thing I remember was the front end of the machine bobbing right up in my face. When I came to, in the ditch, my neighbor, Ted Corbett was bending over me, and there was this gosh-awful pain in my leg.

"Get me outa here," I grunted, "I'm half buried in the mud."

"If it hadn't been for the mud you'd be buried a lot deeper than that," he retorted.

You know, she all happened so doggoned fast I just didn't have time to think. 'Course Sara, being a woman, had to make a moral out of it. She says if I'd taken time enough to think of what I was doing in the first place, it wouldn't have happened at all. There are no careless tractors, only careless drivers, according to her.

Yours,

PETE WILLIAMS.

## Sketch Pad Out-of-Doors

No. 76 in a series—by CLARENCE TILLENIUS



WHEN out sketching on a summer's day with the sun blazing down, many people feel they must work in color. This is often a mistake. In the morning and the evening the color in landscape is richer and more harmonious. Glaring sunshine at midday often gives a bleached look to foliage and grass where the light falls strongly, and shadows look sooty and black by contrast. At such times it is much better to spend your time making studies in black and white—pencil, charcoal, or pen and ink.

Look long and carefully at whatever scene is before you. Think of it as a pattern of light and shade. In the accompanying sketch, the tree trunk

in the foreground is the chief interest. Before putting down the first strokes, one would hold up the pencil vertically in line with the trunk where it comes out of the ground. This gives the angle and, with this decided, all other lines of branches and levels of the ground can be judged accordingly.

The cast shadows on the grass, if you look at them with your eyes half closed, will appear as fairly flat areas of tone and can be expressed very simply with pen and pencil. Do not get them too dark. The light from the sky will always lighten such cast shadows. The underside of the sloping tree trunk in shadow (as in the sketch) will likely be much darker. V

## Do you need an EXTRA ROOM OR TWO?



If you need more room in the farm house for the children, more accommodation for hired hands, more all-round convenience for everybody in the home, a spare room for visitors . . . or if you simply need more space for relaxation, don't let a shortage of ready cash stop you from going ahead with building plans now.

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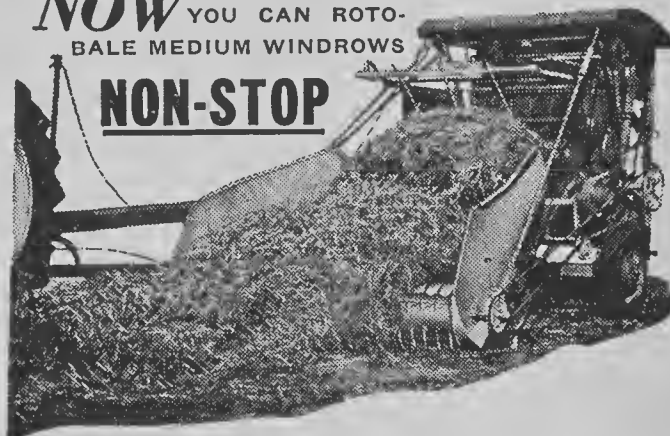
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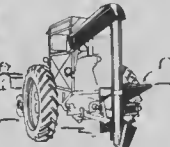
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## Antibiotic Curbs Footrot

THE most effective treatment to eradicate footrot in sheep appears to be a 10 per cent solution of an antibiotic, chloromycetin in alcohol, according to the Animal Pathology Laboratories at Hull, Que. This treatment is used in conjunction with paring of the feet and isolation of animals under treatment.

In tests at the Montreal branch laboratory, using 29 sheep with 92 feet infected, only 1 had a recurrence of footrot during treatment, and this was controlled with further applications of the drug. It is believed that 1 or 2 treatments should be sufficient in most cases.

Before treatment, all feet were carefully pared to expose any hidden pockets of infection, which often occur beneath the horn and sole of the foot. After treatment, animals were examined every 3 to 6 days until healing was sure. Finally the sheep were assembled in a clean pasture where infected animals had not grazed.

Footrot begins as a mild inflammation in the soft tissue between the toes, and it may spread around the junction between hoof and skin. Eventually the skin breaks and infection spreads downward under the wall and sole, separating these from the underlying tissues. The rotting produces a foul odor, animals become lame, lose weight and are more susceptible to other diseases. Infected animals contaminate the soil with footrot bacteria and these organisms enter the foot tissues of healthy sheep. Wet weather, low wet pastures or muddy corrals favor the spread of infection. Footrot bacteria cannot live in the soil longer than two weeks if infected animals are removed.

It pays to isolate all new stock and examine them carefully before they join a healthy flock.

## Precautions Against Shipping Fever

WHEN the time comes for moving feeder and stocker cattle from the ranges of Western Canada to feedlots in Ontario, remember that many cattle are lost, and therefore money is lost, through the disease known as shipping fever. This loss can apply, of course, whenever and wherever cattle are shipped.

Shipping fever is similar to influenza in human beings, according to the Ontario Veterinary College. In feeder cattle, it is aggravated by the excitement and exhaustion, or stress factors, resulting from moving them long distances.

Observe cattle closely for any evidence of distress in breathing, dullness or listlessness, when they arrive on the feedlot. Animals should be placed in quiet surroundings with a good windbreak and plenty of fresh water. Feeder and stocker cattle

should be isolated from the home herd for at least two weeks.

Feed them grass, or prairie-type hay, rather than legumes and concentrated feeds at first. Then change the feed slowly from a low to a highly nutritious level. Shipping fever may appear suddenly and in many forms. A veterinarian should be called promptly for early diagnosis and proper treatment.

## Medications Need Your Help

DRUGS added to feeds cannot replace good animal husbandry and sanitation, warns the Canadian Veterinary Medical Association. These medications are added to feeds in an attempt to control certain disease conditions. They may do the job in one herd, but not in another, because problems vary from farm to farm.

The visible signs of many diseases are so similar that diagnosis by a veterinarian, backed by laboratory tests when necessary, is vital. The indiscriminate use of medicated feeds can lull a farmer into a false sense of security. This can be costly in terms of lost production, decreased efficiency and actual loss of infected animals.

## Range Grazing Systems Compared

CONTINUOUS grazing of native ranges proved superior to two-field deferred and rotational grazing at the Manyberries Range Experimental Farm, Alta. Plant cover changes were similar in both fields during 9 years of summer grazing, but S. Smoliak reports that yearling steer gains were greater on continuous grazing.

Each rotation field was grazed in spring and fall every other year, and during the summer months in alternate years. When spring grazing was stopped in mid-June, considerable subsequent growth usually occurred. Meanwhile, protection of the summer-grazed field until mid-June allowed the vegetation time to make most of its normal development before exposure to grazing.

Total grass, forb and shrub ground cover increased slightly during the period of study. Club moss increased on the rotated fields, but decreased on the field under continuous use. Average summer gains of yearling steers were 300.5 lb. on the continuous system, 286.6 lb. on the rotational system.



Sylvester Smoliak

[Guide photo]



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See page 6.**

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## LIVESTOCK

### Troublesome Hog Parasites

**T**HE worst parasites affecting swine are intestinal roundworms.

The swine become infested when worm eggs are swallowed from the soil, floors or litters which have been contaminated by previously infested pigs. The worms cause irritation and tissue damage as they migrate through the body organs, or interfere with the normal absorption of food when they are in the intestine. The presence of worms is indicated by coughs, lung congestion, pneumonia, thumps, rough coats, stunted and paunchy appearance, running at the eyes and nose, and general unthriftiness.

Healthy vigorous pigs are less susceptible to the serious effects of roundworm infestations. A practical and efficient sanitation system, balanced rations and good management help to control the parasites. If treatment is necessary, several products such as worm oil (oil of chenopodium), phenothiazine and sodium fluoride are useful.

At the Brandon Experimental Farm, Man., sodium fluoride has been safe, efficient and economical. The medicated feed was prepared by mixing 1 lb. of sodium fluoride with 99 lb. of dry feed. Feed for pigs under treatment was calculated for one day, and was placed before them as one feed and left until it was all consumed.

Medicated feed should never be used as a slop feed, because sodium fluoride dissolves readily and can give pigs an overdose by drinking water from the slop. For best results, it was found that pigs should be separated into groups according to their size, so that all received the proper dosage of worm expellant.

### Fleece Weights Are Early Guide

**I**N selecting range sheep for wool production, you can use yearling, greasy-fleece weights as a guide, according to Dr. S. B. Slen of Lethbridge Experimental Farm, Alta. Yearling fleece weights were studied there because early selection of breeding stock for maximum wool production is essential. Weight was used because it measures the combined effects of fiber thickness (grade), staple length and the number of fibers per unit of skin area.

Over a 10-year period, successive fleece weights were taken from sheep of the Rambouillet, Romnelet and Canadian Corriedale breeds, throughout their productive lives. The heaviest fleeces occurred during the second year of production in all three breeds. On this basis, it was calculated that about 80 per cent of the maximum weight was produced in the first year of life. Consequently, if this was maintained throughout a sheep's productive life, it would contribute to high wool production.

Greasy fleece weights are obtained at shearing, when poor producers can be marked for fall shipment. If replacement ewes are ear-tagged, the fleece weights can be recorded, and

poor producers are eliminated after examination of records. Yearly fleece weight is a useful aid to improved wool production and increased returns.

### Leptospirosis More Widespread

**L**EPTOSPIROSIS is relatively new in this country, but already it is quite widespread. The symptoms in cattle include high temperature, depression, loss of appetite, heavy breathing, lower milk yield and abortion. Blood may be noticed in the urine in the early stages, or when the animal is recovering.

A special study of the disease has been made at the Animal Diseases Research Institute, Quebec. It is reported from there that the severity ranges from mild to actual death. In the mild form, only one or two cattle in the herd will show signs of infection, but when it is severe, the symptoms develop in many animals at intervals of a few days. Death may occur both in young and mature animals. In the case of recovery, the return to normal milk production is slow, and the growth of young steers may be retarded considerably.

Diagnosis is difficult, because most of the symptoms can appear in other infections. Prevention and control are also difficult, since animals that have recovered remain carriers of the disease for varying lengths of time. Infected animals that have not been identified are also a danger.

Immunization with vaccine is recommended by some, but it is hard to discover the value of this, owing to variations in severity of outbreaks. At best, immunity is claimed to last only 6 to 12 months, and re-vaccination once a year is necessary. Various antibiotics have helped to relieve leptospirosis at the acute stage, but there has been less success in their use for control in the carrier stage.

### Some Water Dangerous for Cattle

**I**F drinking water contains too much toxic chemical, or when blue-green algae are present, cattle can become sick and die, warns veterinarian Victor Senior, Saskatchewan Department of Agriculture. A dry summer reduces the water line in many sloughs, increasing the percentage of toxic chemicals. Sodium sulphate, for example, combined with magnesium (often referred to as alkali) can be fatal if too much is drunk.

The blue-green algae become dangerous when wind blows them to one end of a lake or slough and concentrate them in a small area. Cattle drinking these algae have a staggering gait, breathe hard and usually die very suddenly. To kill the algae, spread about three pounds of copper sulphate in about a million gallons of water. This can be done by tying the copper sulphate in a sack and drawing it through the water to get an even distribution. A dugout measuring 165' by 65' and 12' deep, will hold approximately one-third of a million gallons.





## Bulk Milk Is Better Milk

**A**LTHOUGH bulk handling of milk is fairly new in Canada, it is catching on fast. There were 2,500 bulk tanks on farms at the middle of this year, of which more than 2,000 were in Ontario. Most of the remainder are in British Columbia, Alberta and Manitoba.

One of the best features of bulk handling is the improved quality of milk. Milk is cooled quickly and simply to low temperatures, and most tanks are capable of holding milk at 35°F.

Bulk tanks save labor, especially with a pipeline system. Milk is pumped from the milking machine through pipes to the tank. Pipes can be washed and sanitized mechanically, and the smooth surfaces of the tank are cleaned quickly and easily.

Milk hauling costs are reduced, and the buying and replacement of cans are eliminated.

But bulk milk is not without its problems. An initial investment of \$1,500 to \$4,000 is needed to buy a farm tank. It is generally agreed that a herd of not less than 20 milk cows is necessary to make it pay. Other expenses may include a pressure water system, extra wiring for the tank, a water heater, adequate drains in the floor, and possibly enlargement of the milkhouse. All-weather roads are another factor, and the barnyard must be in such condition that the tank trucks can drive up to the milkhouse.

There is little chance of any savings being apparent during the change-over to bulk milk handling. However, in the long run, there is greater efficiency in the use of labor and time, and reduction in costs of production and manufacturing.

These comments on bulk milk are from E. S. Humbert, Department of Dairy Science, University of Saskatchewan. ✓

## Grain Needs Of Dairy Cows

**T**HE U.S. Department of Agriculture has recommended diets for the various breeds of dairy cow on good roughage, as follows:

**Holsteins.** No grain up to 16 lb. of milk per day; 0.4 lb. of grain for each lb. of milk over 16 lb. per day.

**Ayrshires and Brown Swiss.** No grain up to 14 lb. of milk per day; 0.45 lb. of grain per lb. of milk over 14 lb.

**Guernseys.** 0.55 lb. of grain for each lb. of milk above 12 lb. per day.

**Jerseys.** 0.6 lb. of grain for each lb. of milk above 10 lb. per day.

These are not intended to be rigid rules. For instance, if the roughage is of high quality, less grain will be needed. On the other hand, a cow may be thin after freshening and would be helped by extra grain.

A lot depends on milk production. Try increasing the amount of grain

fed and see whether the extra milk produced is worth more than the extra grain. The difference should begin to show in about 2 days. This system can also be used to check the protein level of the grain mix, because you can measure the cows' response when you raise the level of protein. ✓

## Cleanliness At Milking Time

**T**AKEN from the National Dairy Council's code, here is a check list of things to do when milking cows.

- Clean udders and teats immediately before milking.

- Dispose of abnormal milk to avoid infection of cows and contamination of utensils. Discard the first streams of milk from each teat into a strip cup.

- Brush visible dirt from flanks, bellies and tails of cows before milking commences. These areas and the udders should be clipped in winter.

- Avoid feeding silage and other feeds that give off-flavors to milk within 4 hours of milking.

- Keep milkers' hands clean, prohibit wet-hand milking. Don't handle cows, milk or utensils if you have in-

fect cuts or lesions on hands or arms.

- Milkers and milk handlers should wear clean outer garments. Keep milk stools clean and store in clean place above floor.

- Use clean milk cans, and keep them away from manure and splash. Have covers on cans, except when filling them. Strain the milk in the milkhouse, if possible.

- As soon as a pail or can is filled, remove it to the milkhouse.

- Use single-service strainer pads only; never woven wire cloth strainers. ✓

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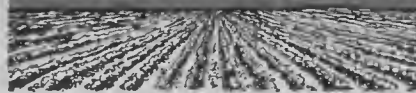
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## SOILS and CROPS



### Hints on Soil Sterilants

SOIL sterilants are most effective between mid-summer and freeze-up, and after top growth has been removed by cutting, according to W. Lobay and A. W. Goettel of the Alberta field crops branch. However, their use is practical only on limited areas where a high expenditure is justified to prevent the spread of persistent perennial weeds, such as toad-flax, hoary cress, leafy spurge, Russian knapweed and field bindweed. Some sterilants are also for quack grass and other grasses.

Treatment should extend at least 6 feet beyond the outermost plants in the patch, so that underground parts will not send up new shoots. All treated areas should be marked with stakes and left uncultivated for at least 3 years (in the case of perennial weeds). Follow-up applications are often required to destroy all weeds completely. If seedlings or resprouts appear, they can be treated with 2,4-D. Heavy rates are applied to the more resistant perennial weeds, but the directions and precautions on labels should be followed carefully.

Soil sterilants are recommended in dry form where rainfall is not a limiting factor, because less labor is required. Most of them can be applied with a hand duster, a tin container with holes in the bottom, or a small hand spreader. To apply uniformly, half of the chemical should be distributed in one direction and the remainder at right-angles to it.

In liquid form, soil sterilants should be used where moisture conditions do

not allow sufficient leaching, or where the chemical is designed for spray application. Mix with water according to directions on the container. Rinse the sprayer and nozzle with clean water, and dry them after use, because some solutions cause corrosion and deterioration of the sprayer unit.

If treatment is delayed until late summer or fall, weed patches should be prevented from going to seed by cutting them during the summer. A warning is given that soil sterilants can kill trees and shrubs near treated areas, since roots extend under the treated surface.

### Trash Cover Wins on Balance

THE advantages of trash cover far outweigh the disadvantages, says Earl Johnson, soils specialist with the Saskatchewan Department of Agriculture. It has helped hold down soil as long as three years after lack of moisture prevented crops from being grown. Ordinary stubble has done a better job of controlling soil drifting in the U.S.A. than expensive construction works such as terraces, structures and contouring.

With trash cover, under moist conditions, it is harder to control weeds using subsurface cultivators than with disk implements or moldboard plows. However, the proper shovels on cultivators will help and a timely operation will give the best weed kill.

Sometimes yields decline somewhat where trash is kept on the surface, but the decrease is not great. On the other hand, some experiments on trashy fields have shown that they outyielded fields where stubble was burned off.

The big advantages of trash cover are that moisture infiltration into the soil is always improved, evaporation may be reduced, and prevention of drifting soil can save more crop in one season than might be lost in several years of maintaining a trash cover. It is also costly to restore soils robbed of their fertility by erosion, and it takes a long time to get back even close to the production of the original topsoil.

Mr. Johnston's advice is to carry out every tillage operation to save the most moisture and keep topsoil losses to a minimum.

### Beet Pulp And Bisulphite

CONDITIONERS for silage have been tested over the past 3 years at the Agassiz Experimental Farm, B.C. Dried beet pulp gave excellent results, when added at the rate of 70 to 100 lb. per ton of fresh-cut forage. The initial cash outlay for the pulp is quite high, but this is offset in part by the fact that 70 to 75 per cent of it is recoverable when the silage is fed.

Sodium bisulphite added at the rate of 8 lb. per ton to early cut legume silage ensures a pleasant-smelling silage. This costs about \$1 per ton. It does not increase feeding value in any way.

Silage conditioners are not needed with horizontal or bunker-type silos, where high moisture content of the silage serves as an aid to excluding the air rapidly.

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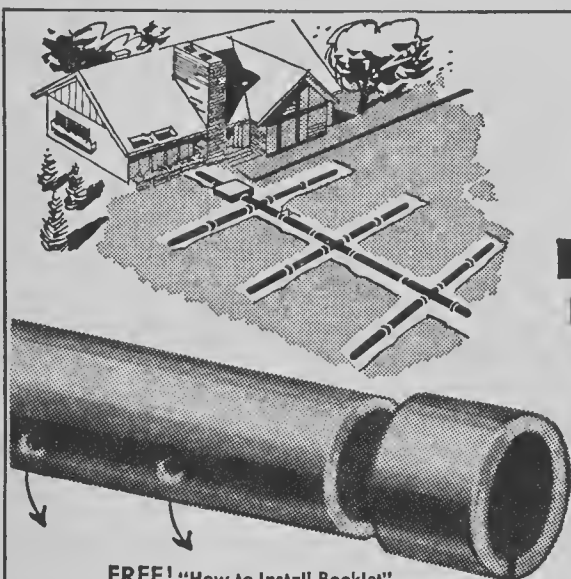
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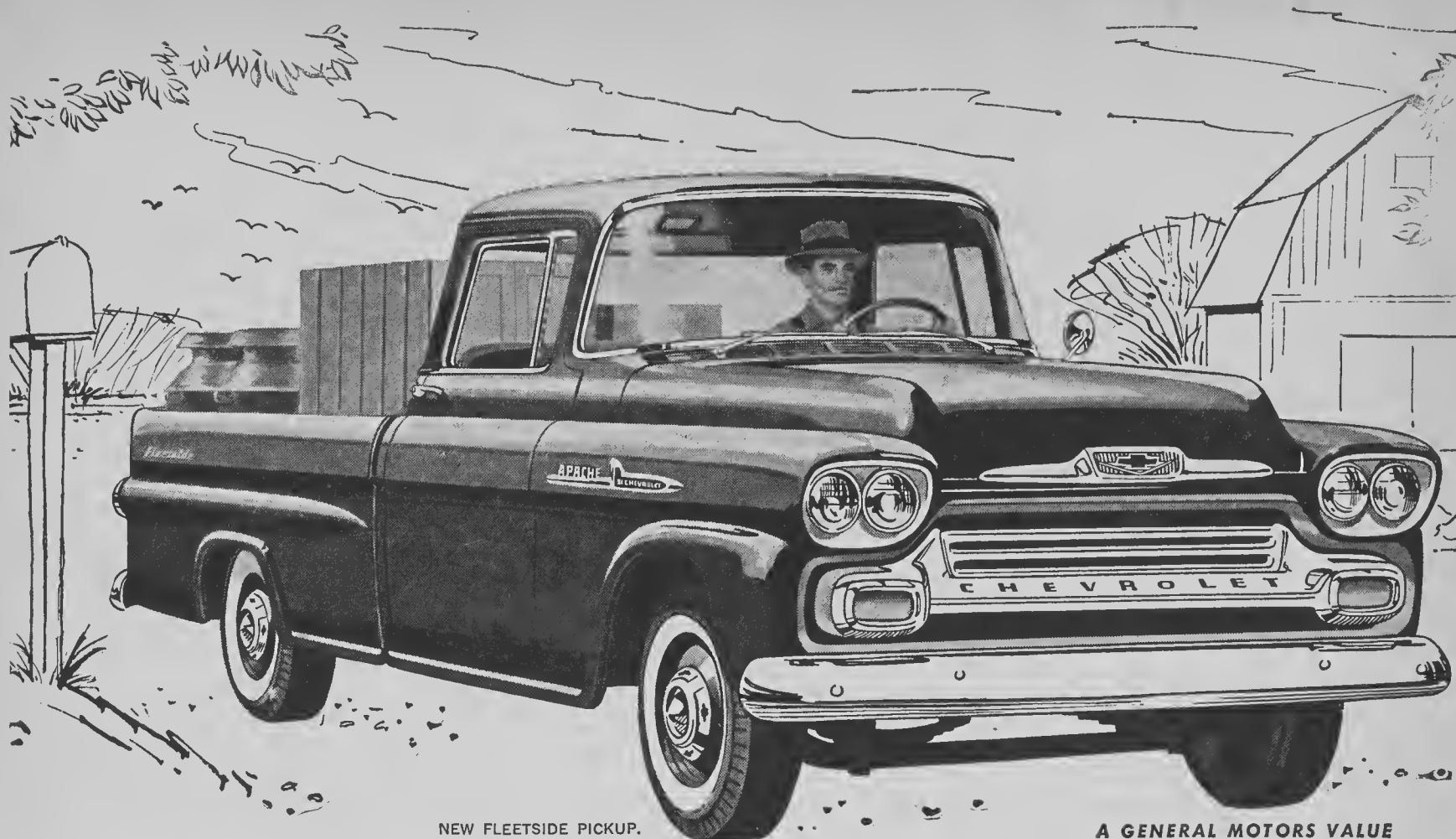


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## SOILS AND CROPS

### Making Dugouts Serve the Purpose

MANY western farms would have been a lot worse off during this year's dry weather without dugouts. However, there have been several cases where dugouts were not successful owing to an inadequate water supply, usually caused by incorrect location of the dugout on the watershed.

Watershed studies at the Swift Current Experimental Farm, which is representative of conditions in southern Saskatchewan, have shown that watershed yields average about 0.9" of water per year. On this basis, a watershed covering 15 acres would be required to produce 250,000 gallons, which is the capacity of an average dugout, 120' by 60', and 12' deep. However, this watershed would fill the dugout only half of the time, and therefore the size of the average watershed needs to be doubled to keep the dugout filled. A 30-acre watershed should be sufficient to fill the dugout 8 years out of 9, if it meets the average conditions of snow accumulation, slope and land use.

Consider the type of watershed in relation to the average. If trees are present, or obstacles that will collect an additional supply of snow, a smaller watershed could be sufficient. However, if the watershed is flat and has a large portion in summerfallow in certain years, or produces less than average runoff for other reasons, the size of watershed must be increased.

It is important also to locate the dugout to intercept all the surface runoff originating in the watershed. In some cases it may be necessary to

construct dikes or earth structures to direct the flow of water into the dugout. If this is not practical, you need a larger watershed, increasing it in proportion to the amount of water intercepted.

### Animal Numbers And Forage Growth

FOR bigger animal gains, adjust the rate of stocking on your pastures to the seasonal flush, rather than keeping a fixed rate of stocking throughout the pasture season. Following a four-year study of beef steers on permanent pasture at the Central Experimental Farm, Ottawa, W. A. Jordan reports that an extra 87 lb. of animal gain per acre was obtained by stocking to capacity during the flush of spring growth, and reducing the number of animals according to the slower growth.

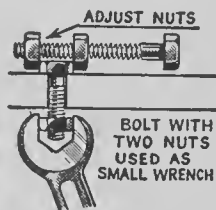
Adjusted stocking appears to be advisable where the highest possible animal gains per acre are wanted over a short period, but for growing animals, or animals intended for long keep, it is not worthwhile.

The main advantage of the adjusted method is that nearly all the spring flush of grass is consumed when it is most nutritious. However, after the flush, some animals have to be disposed of, or placed on another pasture at a time when aftermath of annual crops is not usually available. Stocking at a smaller rate throughout the season results in lower gains per acre, and much of the spring growth matures and decreases in nutritive value. However, the surplus spring growth acts as a reserve during the second half of the pasture season, and dispenses with the need for supplemental pasture.



#### Holding a Bolt

To hold a bolt while you tighten or loosen the nut, use another bolt with two nuts on it. Adjust the nuts so they are snug against the head of the first bolt, and they



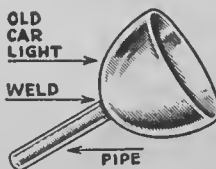
make a fine little wrench, while you use a proper wrench to shift the nut. This comes in handy in tight places too.—G.M.E., Alta.

#### Keep Insects off Paint

To repel insects away from freshly painted surfaces, mix 1 to 2 teaspoons of wintergreen or oil of citronella in each gallon of paint.—S.C., Fla.

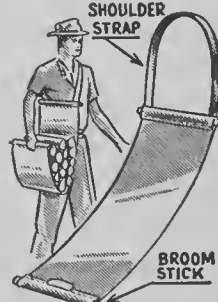
#### Making a Funnel

Here's how to make a funnel, using an old car light. You simply weld a 3/4" pipe, of suitable length, to the aperture where the bulb-socket used to be, and that's all there is to it.—J.G., Alta.



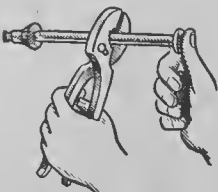
#### Wood Carrier

This is the slickest rig for carrying wood. A piece of canvas or good grain sack, 34" long and 16" wide, is required for the person of average height. Two pieces of an old broom handle, or a small branch about 1" thick, are sewn onto each end, as shown, with a hole cut at one end of the canvas for a handhold. A length of strap is attached to the other end, of suitable length to go over the shoulder.—H.S., Mich.



#### For Phillips Screws

If you haven't got a Phillip's screwdriver, all you need is a pair of pliers and a common nail of the right size to fit into the crossed grooves on the head of the screw. Steady the nail with one hand and turn the screw by gripping the nail with the pliers, as shown in the sketch.—H.J., Pa.







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### Pruning Fruit Bushes

**D**ON'T let those raspberry, currant and gooseberry bushes grow wild, if you want to maintain production, says P. D. McCalla, Alberta's supervisor of horticulture.

Here are his rules for thinning out the bushes. Raspberries increase by sucker growth and fruit is borne on 2-year-old canes. Canes die after bearing fruit and should be removed in the fall, or early spring if you don't

have time this year. Young canes should also be pruned at ground level, so that there are no more than 6 or 7 canes per square foot.

Red and white currants bear most fruit on short spurs, which occur on wood 2 or 3 years old. Remove everything older than 4 years. The ideal bush should have three 1-year-old stems, three 2-year-olds, and three 3-year-olds.

Prune gooseberries in the same way as currants.

Black currants need a good supply of 1-year-old growth, because this bears the most fruit. About eight stems per bush are sufficient. **V**

### Tomato Yield Booster

**I**T'S sometimes a puzzle to know whether to prune tomatoes or not. If you have the dwarf, determinate type, it is self-pruning, but the indeterminate, or staking, type does need attention.

The Saanichton Experimental Farm, B.C., gives the procedure for pruning the indeterminate tomato as follows: Break off the young shoots appearing in the axils of the leaves, taking care to leave the terminal growth intact. If the side shoots are small, they break off easily, but larger shoots should be removed with a sharp knife to avoid damage to other parts of the plant.

In an average season, 4 or 5 trusses of fruit will ripen. It is a good idea to nip out the terminal growth immediately above the third leaf following the fifth truss. This helps to make fruit ripen more quickly, if it is already set. **V**

### Fruits In the North

**F**RUITS for the north have had a pretty thorough testing at the Kenville Illustration Station, which is about 200 miles northwest of Winnipeg, near the Manitoba-Saskatchewan border.

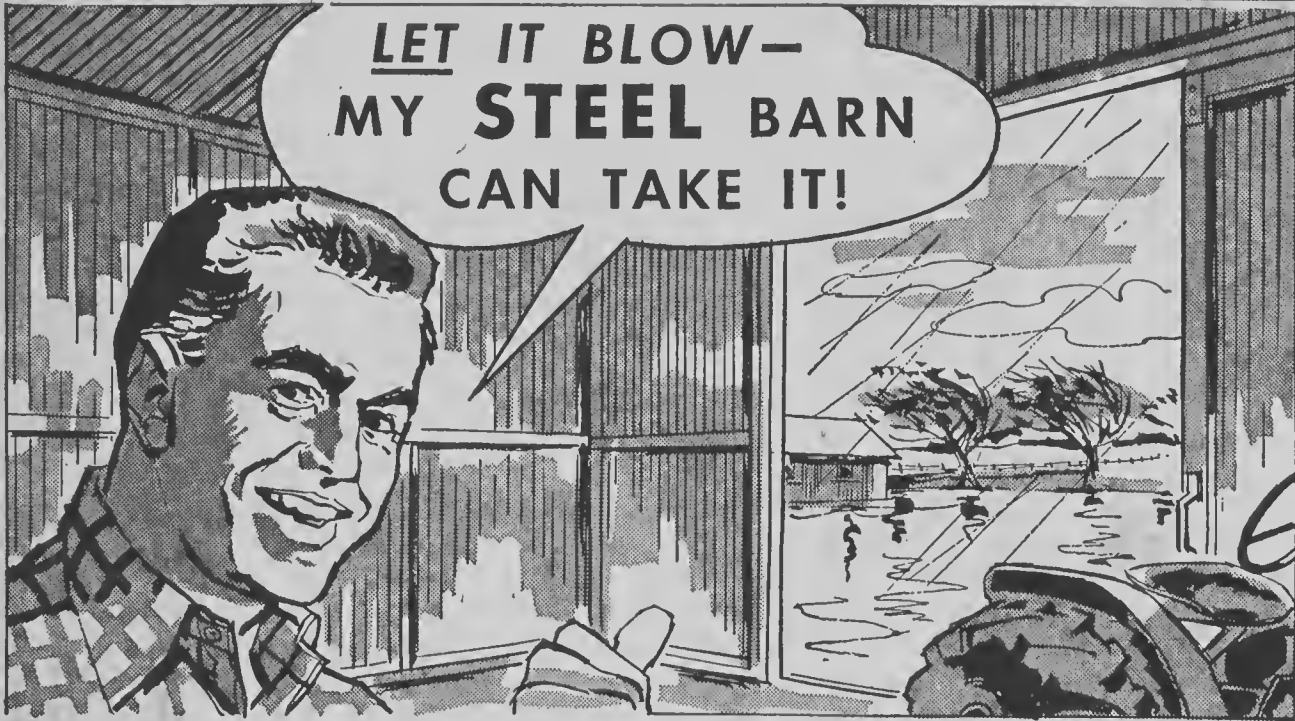
Outstanding in winter hardiness have been Heyer No. 12 apples, while the best crabapples were Osman, Dolga, Rescue and Bedford. The varieties of successful plums were Norther, Bounty and Pitsin No. 10.

In the small fruits, all the common varieties of raspberries, arrow head strawberries, Red-Lake currants and Pixwell gooseberries produced well at Kenville. However, the cherry-plum hybrids, Manor, Dura and Sapa, were not sufficiently hardy.

Mountain ash and scotch pine increased their height by 18 inches a year at this northern station, and it was noted that pine needles did not turn brown over winter. Horse chestnut, Amur maple and Hopa ornamental crabapple were also successful plantings. **V**

### Furrow Irrigation

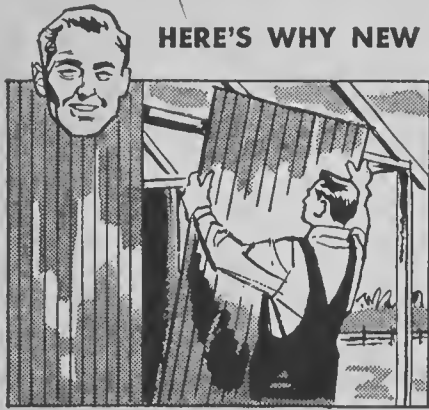
**I**RRIGATING the farm garden by the furrow method requires some form of water control so it will be absorbed uniformly the whole length of the row. This can be accomplished by the use of adjustable canvas dams in the main supply ditch to raise the water level and slow the rate of flow. **V**



Protection you can depend on is one good reason why successful farmers everywhere build with Galvanized Steel. When the wind rips across the barnyard, it's a comfort to know that nail heads can't tear through the tough steel sheeting . . . and that

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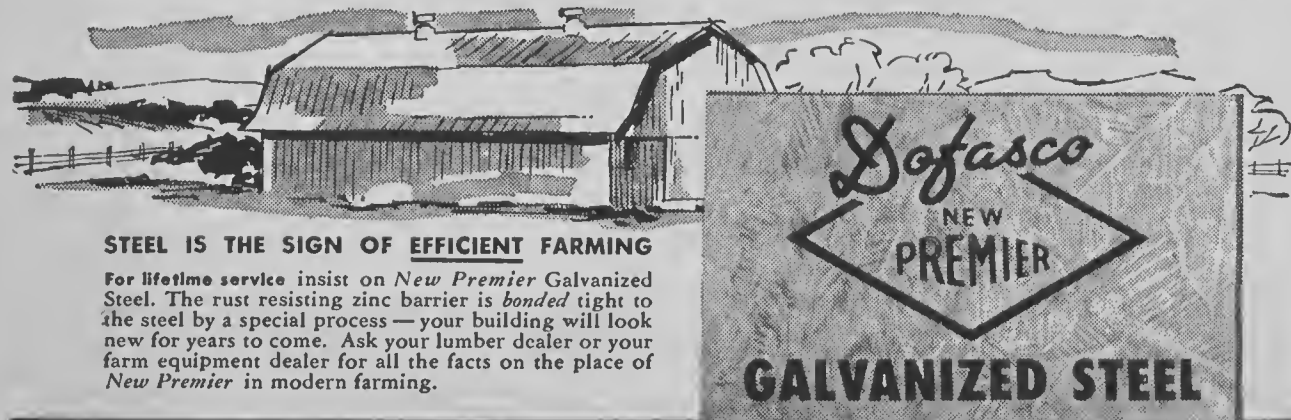
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# POULTRY

## Hot Water Heat In Broiler House



[Guide photos

Don McQuay's hot water heating plant is located alongside the poultryhouse.

**W**ALK into broiler-grower Don McQuay's new poultryhouse at Whitby, Ont., even in winter, when it is filled with young chicks, and you'll scarcely believe your eyes. Gone are the maze of brooders that are characteristic of most buildings.

Mr. McQuay, who lost his old building through fire a year ago, has swung over from brooders to hot water heating, and he claims that the system gives him some remarkable advantages. There is no fire risk and insurance rates are lower, humidity in the pens is always low and the convenience of the system is startling—"Just push the button, set the thermostat, and the building will soon be ready for chicks," he explains.

With no brooders to cluster under, and with the uniformity of heat, the birds spread out evenly over the floor too, and stay healthier.

Only drawback of his new system is the cost—it calls for a separate heating unit (he uses an oil furnace to

heat the water), and a system of pipes around the building. He claims that once the unit is installed, it will last much longer than other systems and more than justifies the cost.

McQuay's building is a two-storey quonset, measuring 140' by 40', with a capacity for about 13,000 birds. His heating unit would be adequate for a building twice that size. Even so, his fuel cost now is only about 1½¢ per bird, per year, compared to 4¢ under his old system. He figures his own operation is about the minimum size to justify such a setup. V

## Old Housing On B.C. Coast

**O**N the British Columbia coast, high egg production can be obtained from birds in uninsulated laying houses, if good feeding and management are provided. A. T. Hill, of the Agassiz Experimental Farm, stresses that this applies strictly to the conditions in that locality.

Comparing a single-boarded, open-front house, with only a rolled curtain to let down in cold weather, and a new house with insulated ceiling and

double boarded walls, he got some interesting results. In the old house the Leghorn pullets averaged 224 eggs, compared with 216 in the new house, and in all other respects the results were very similar, including body weight, feed consumption, mortality, and egg weight.

Mr. Hill concludes that good management pays dividends in old houses as well as modern ones. Also, that coastal poultrymen with old houses, which can be repaired, should seriously consider the saving before they go to the trouble and expense of building expensive, new housing. V



## They raised the roof and raised a loan for the community hall

**Carpentry and finance**, two widely separate fields but the farmers of the district took both jobs in stride.

Successful farmers have a lot of *know-how* about a lot of things and one of them is farm tires.

Year after year more and more farmers buy Goodyear farm tires and insist on Goodyears when they buy new equipment. They know that Goodyear quality, value and performance—save time and money. Experienced farmers have proven Goodyear tires grip, give sure-footed traction where other tires slip.

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mounting charges to pay. Many dealers offer fast, "on the farm" service.

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Bob Spaciel checks the hot water pipes around the walls of the poultryhouse.





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# Wherever you farm...

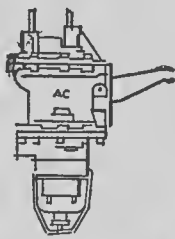
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## Electricity And Water Systems

**W**HEN electricity reaches the farm, one of the first things to install is a running water system for the farm home, according to Jack Peck, mechanics specialist with the Saskatchewan Department of Agriculture. He regards running water both as a household convenience and a production tool, and says that watering stock from a pressure system can save enough labor to pay for itself many times over.

The cost of a watering system depends on the number of feet of pipe to bring water from the well into the home and out to the barn. The basic cost is an automatic pressure system at \$125 and up. With electricity, pressure systems are much preferred to gravity, if the tank must be filled every day or so.

Mr. Peck recommends plastic pipe outside the house. It can follow trenches dug in the ground, even when trenches are crooked. It is easier

to cut and fit than galvanized or black iron pipe, and there is less corrosion with it. Plastic pipe works well with cold water, but is unsuitable for hot water. Copper pipes are best in the home.

A farmer can lay the entire water system himself, but it is better to have a plumber for the sewage system, which requires a permit and also inspection.

Publications that describe water and sewage systems can be obtained from ag. reps. and departments of agriculture. V

## Multi-Purpose Grease

**A** UNIVERSITY of Wisconsin farm engineer, O. I. Berge, draws attention to a multi-purpose grease available for use on farms. It is made with a lithium-soap base and resists both heat and water. It is suitable for high-speed bearings and for places where water may wash.

Ordinary pressure-gun grease is made from a calcium base soap and can resist washing action, such as when a car is driven over a water-covered road, but it is not very heat-resistant. Wheel-bearing grease is made with a soda soap and is quite heat-resistant, but not very water-resistant. V



*Some more new ideas  
for the farm market*

### FARROWING CRATE

To eliminate loss of baby pigs, this all-steel crate permits sow to stand up, lie down, go forward or back, but not turn around. It is equipped with feed trough and heat lamp. Inside measurement 24" by 77", weighs 100 lb., collapsible for storage. (Ferguson Manufacturing Co.) (223) V



### CROP DRYER

This is a portable, batch-type blending dryer in 400-bushel class. Designed for wheat, barley, oats, shelled corn, soybeans or sorghum. PTO driven by 3-plow tractor or better, and has drawbar and retractable wheels, loading auger and discharge spout. (John Deere) (224) V

### WATER SYSTEM

This tank-mounted water system comes in 3 shallow-well and 2 deep-well models, with capacities of 800 gallons per hour. Complete with pump, tank, air control, pressure gauge, pressure switch and regulator, and ejector assemblies. (F. E. Myers & Bro. Co.) (225) V



*For further information about any item mentioned in "What's New," write to WHAT'S NEW Department, The Country Guide, 1760 Ellice Ave., Winnipeg 12, Man., giving the key number shown at the end of each item, as—(17).*

Continued from page 11

## TOP BULLS FOR EVERYONE

watched its early growth with dismay. Looking back on that development, Dr. J. C. Rennie of the Ontario Agricultural College says now that there never were enough good bulls to go around. Many breeders will admit that some of the bulls they used to sell were not real breed improvers.

Now a happier trend has developed for the purebred men. The Holstein Friesian Association reports that many dairymen who were introduced to good dairy cattle through A.I., are now becoming ardent cattle breeders, joining the association, selecting a herd sire of their own, and setting out to produce breed-improving cattle themselves.

While most breeders of dairy cattle now concede the value of A.I., a more recent development has aroused the ire of another group of cattlemen. Once units built up their batteries of dairy bulls, many of them began to buy beef bulls, and these bulls are becoming increasingly popular. Almost one-third of the business of the Oxford and District Cattle Breeding Association (one of the province's biggest units, which is located in the heart of a dairying district) is with beef semen, most of which is used in dairy herds. Dr. R. J. McDonald, manager of the unit, says that most of these herds produce milk for manu-

facturing (cream, cheese or concentrated milk) and the crossbred calves go for meat, so cow herds are not being mongrelized.

Even purebred dairymen have found a use for beef semen. "Calving out Holstein heifers used to be a nightmare for me," recalls one dairyman with a 125-cow herd, "because the calves were too big at birth. I breed heifers to Hereford bulls now, the calves are much smaller and I never miss a night's sleep at calving time any more."

Even though only a small percentage of the beef semen is used on purebred beef herds, breeders of beef cattle are feeling the effect of A.I. on their bull sales. "Unfair competitors," they call the A.I. units. They have risen up in opposition to them.

**T**HE Hereford Association in Canada has never permitted registration of animals sired artificially. Now, the Shorthorn and Angus breed associations, which were more lenient to start with, are frantically re-assessing their position and taking steps to prevent their members from using A.I.

In the face of these developments, Dr. McDonald has determined that only about 6 per cent of the Shorthorn semen from his unit is used on purebred beef herds anyway. He expects the owners of these herds will

drop their registrations if the breed association issues an ultimatum demanding they do that, or go back to keeping their own bulls.

Manager Roy Snyder of the Waterloo Cattle Breeding Association has been scarcely more concerned. "Members of our unit are demanding semen from tested beef bulls—ones that have proven they are the fast-growing, easy-finish kind that will sire money-making calves," he reports.

It's no secret that beef breeders in Ontario have been hesitant, until the past few months, to test their cattle under the province's R.O.P. scheme. As a result, Snyder and his beef buying committee (including chairman Joe Dunbar, a past president of the Canadian Hereford Association) traveled to Texas a year ago and brought back a Charolais bull—a beef breed which is said to grow swiftly and produce beef economically. Demand for semen from this bull was spectacular, both among Ontario farmers and beefmen in Western Canada too. As a result, the committee returned to the United States to buy four high-scoring performance-tested Hereford bulls from two of the top testing stations in the United States—the Pantech farms at Panhandle, Texas, and the Dixon Springs Experiment Station in Illinois. They bought another Charolais bull on this trip for good measure, to give them probably the most potent battery of tested and fast-growing beef bulls in Canada, and thus stealing the lead on beef breeders themselves.

A.I. has done some other remarkable things in its short history, too. It has torn away much of the veil of secrecy surrounding the breeding

business, and has revealed the bulls which carry undesirable abnormalities like dwarfism, hernias, blindness, or other skeletal deformities.

"The dairy industry can't afford to use bulls carrying these characteristics," says Dr. Rennie, "but such a bull mated to a wide cross-section of cows in different herds will soon betray himself. Members won't hush up that fault once it is revealed." As a result of A.I., the red factor in Holsteins (which causes some animals to be born red and white, and makes them ineligible for registration) is a commonly discussed problem now. Bulls carrying the factor have been identified.

A.I. has also demonstrated that animals made famous through showing winnings and publicity campaigns, and selling for fancy prices, can be big disappointments, too.

**T**HE Oxford Association started out with a 2-price system, charging more for services from its highest-priced bulls, on the assumption that they were the best ones. Time proved that assumption to be incorrect, so now the service fee for all bulls owned by the unit is the same.

Even some bulls that were brought into units as "proven" bulls, after sireing high-producing daughters in private herds, have occasionally failed to make good in the units. Why? The daughters making these early records may have inherited their ability to produce from their dams. Alternately, the daughters which failed to produce were conveniently forgotten when the bull's score was compiled.

Despite this fact, there is no doubt that A.I. unit bulls have done an out-

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**The price?** The Fordson Major is priced hundreds of dollars less than other tractors in its class . . . including many gasoline models.

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standing job. Cows sired by them in  
Ontario's D.H.I.A. herds, where milk  
production is measured, outproduced  
cows from natural matings by an  
average of about 500 pounds of milk  
per year.

The rise of A.I. in Ontario can be  
traced to the early 1940's, when scien-  
tists at the Ontario Agricultural Col-  
lege began to experiment with it in  
the Shorthorn herd there. A group of  
Jersey breeders in Waterloo County  
became intrigued, and they bought an  
outstanding old bull to try it out  
themselves. Some Holstein breeders  
followed this example, and then an  
experimental unit was set up in east-  
ern Ontario, offering services to  
farmers for \$2 per cow. Conception  
rates were not spectacular, during  
these early ventures, but the curiosity  
and interest of cattlemen never  
stopped growing.

In 1945, 82 York County farmers  
each paid a membership fee of \$15  
and advanced a loan of \$25 to bring  
together a battery of 5 Holstein bulls  
at Maple. Units were soon organized  
by Holstein breeders' clubs in Oxford  
and Lambton Counties. In 1947, the  
Artificial Insemination Act was passed  
by the Ontario Legislature to regulate  
and control the associations and grant  
them some financial aid.

As more associations were organ-  
ized, and those run by the Holstein  
clubs were reorganized as Cattle  
Breeding Associations, the boards of  
directors of each unit agreed to limit  
their activities to a specific area.  
Among them they were soon provid-  
ing service to most of the farming  
districts in the province.

**T**HE Ontario Association of Arti-  
ficial Breeders, an organization  
through which the units can work to-  
gether when required, developed an  
exchange system so that semen from  
almost any bull in any unit is made  
available to members of any other  
unit. In addition, the semen from sires  
in use in private herds, or in use in  
other countries, can sometimes be  
obtained too.

The 13 units in Ontario (ranging in  
size from the ones at Maple and  
Woodstock, which bred about 80,000  
cows each last year, all the way down  
to those in northern Ontario, which  
might breed less than 1,000 cows) are  
farmer-owned, non-profit companies.  
In effect, they are farm co-operatives.  
Cost of membership is low, but mem-  
bers must make a loan to the organi-  
zation, usually \$15 or \$25.

The business of the units is con-  
ducted by a board of directors elected  
from among the members, and in most  
cases, these boards have hired veteri-  
narians to manage the operation. Bull  
buying committees usually consist of  
the manager of the unit and members  
who are interested in the particular  
breed concerned. Frequently, these  
men will be successful cattle breeders  
themselves.

The Oxford and District unit, which  
is located at Woodstock, has over 40  
bulls in its pens (mostly Holsteins),  
but it keeps semen from about 150  
different bulls available in its frozen  
semen cabinet, provides services to 7  
counties, and has 33 technicians work-  
ing from the central office, or from  
one of the four regional offices. It  
grossed a revenue of nearly \$400,000  
in 1957.

Technicians in the Oxford unit start  
their day's work in the office at 7 a.m.,  
when calls from farmers begin com-  
ing in on the central telephone desk.  
By 10 a.m., they have mapped out  
their routes for the day. Meanwhile,  
semen has been drawn from the bulls  
that are to be used that day, taken  
directly to the laboratory and ex-  
amined, diluted and made into indi-  
vidual doses, which the men pick up  
as they head out into their territories.  
They may pick up some frozen semen  
also from bulls which were specially  
requested.

In a unit like Waterloo, which  
uses only frozen semen, the fresh ma-  
terial is shipped directly to the On-  
tario Veterinary College, where the  
province's freezing equipment is  
located.

Dr. Jim Henderson, secretary of  
the Ontario Association of Artificial  
Breeders, says that the whole business  
of A.I. has outgrown its birth pangs,  
and gained its stride. Now, he says,  
the most important problem confront-  
ing the units involves the selection of  
the right kind of bulls. The units are  
moving fast to solve that problem too.

The Oxford unit, for instance, is  
encouraging members to breed a few  
of their cows to the new and untried  
bulls which it buys, as soon as these  
young bulls arrive at the unit. Then,  
the unit tries to take these bulls out  
of service until their daughters have  
been raised and brought into produc-  
tion, so the bulls can be evaluated.

The unit is going further and using  
the mass of information, which is  
becoming available on daughters of  
its bulls, to locate outstanding cows  
in the herds of individual breeders.  
Then, the unit is trying to make  
arrangements with the owners of such  
cows to have them bred to specific  
bulls, with the possibility that if the  
calf is a bull, and it lives up to their  
hopes, it will be bought by the unit.

Despite this move, Dr. Rennie sees  
no need for gloom on the part of pure-  
bred breeders. "Improving livestock  
isn't going to be reduced to a simple  
matter of statistical analysis—it still  
calls for the art of the breeder, and  
someone still must produce the seed  
stock that will continue to improve  
our cattle herds," he says.

In assisting these breeders, A.I.  
promises to play an important role.  
But already, by making obsolete the  
old scrub bull that once roamed the  
country's pastures, A.I. has earned the  
gratitude of the country's livestock  
industry. V



*"You'll have to excuse Ralph.  
He's a fast eater."*



## CROSSBREEDING

female progeny bred back to an Aberdeen-Angus (crisscrossing), or a 3-way cross could be introduced by breeding them to a Charolais or Short-horn. Unless A.I. was used, however, a completely systematic 3-way cross would require a number of separate breeding fields and a lengthy breeding cycle.

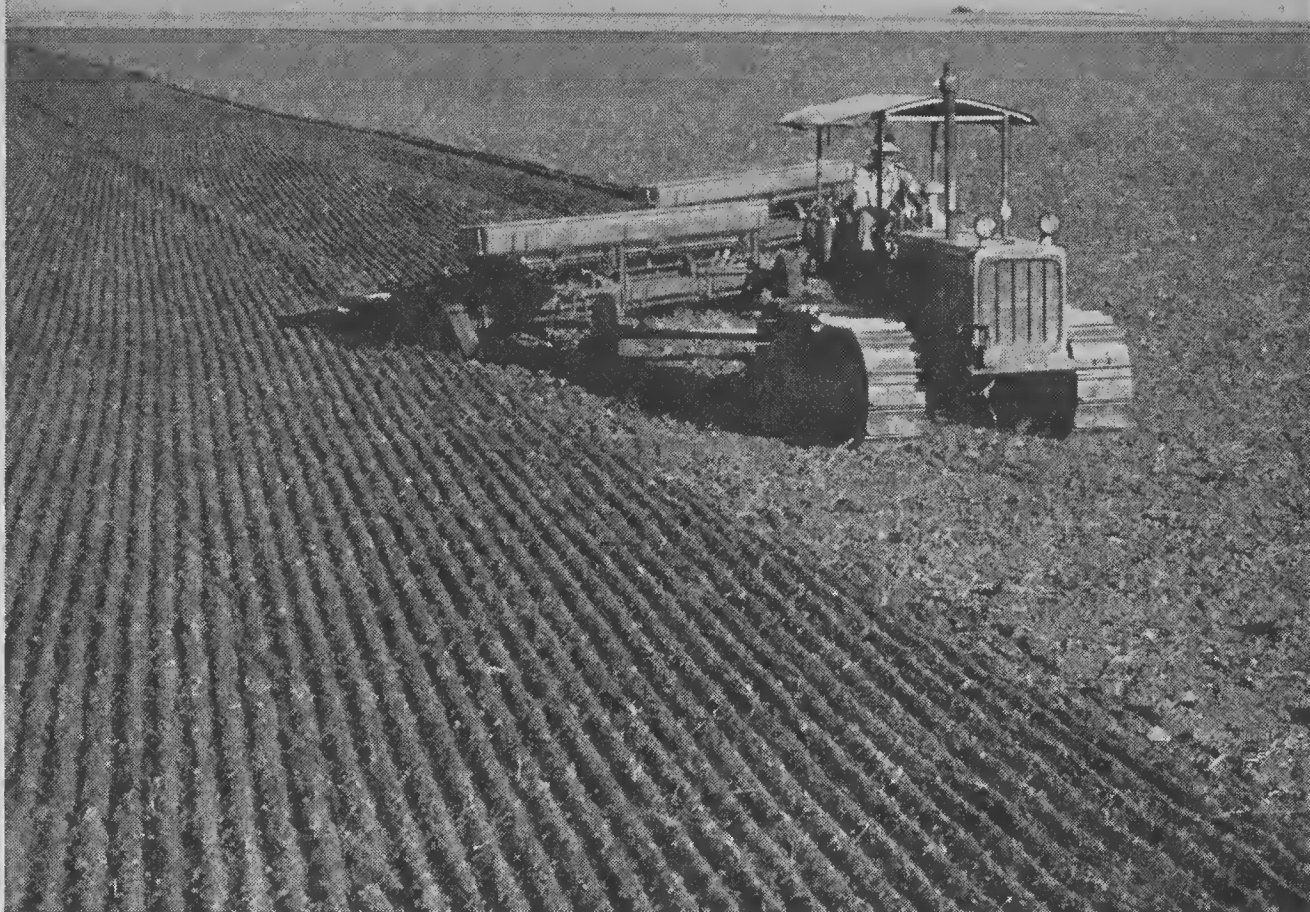
"Probably the simplest way to handle this," states H. F. Peters, Superintendent of Manyberries Range Experimental Farm, "would be for a cattleman to replace his bull battery every 3 years, using a different breed of bull each time (rotational crossing), and retaining as replacement heifers those that show most evidence of crossbreeding."

A LOT more experimental work has been done on the crossbreeding of other classes of meat animals, than on beef cattle. Crossing for commercial production has been used more extensively with hogs than any other type. Most market swine in Canada and the United States are now being produced by crossbreeding, and both countries have developed new breeds, especially designed to produce sires for commercial breeders. At the present time, eight new American breeds have been recognized, while the "Lacombe" pig, developed by the Canada Department of Agriculture, was first released to the public last year. One thing most of the new breeds have in common is that they are definitely superior to the purebreds in the production of lean meat.

In general, the 2-way crossing of inbred lines has failed to restore litter numbers to the level of straight outbreeding, possibly because of lowered reproductive efficiency of inbred dams. But 3-line crosses, using 2-line cross dams, have shown the good effects obtained by a wider diversity in the parent lines. A comparison of 485 crossbred with 820 purebred swine litters produced on Iowa farms showed a crossbred advantage of 12 per cent in litter size, and 16 per cent in average weight at 6 months of age—both of them important factors in the net economy of producing hogs.

"Unfortunately," says geneticist Dr. H. T. Fredeen of the Lacombe Experimental Farm, "most of the swine crossbreeding today has been carried on to mongrelization. This is because the breeding wasn't planned. Most of it is our fault (the experts) because we've failed to give breeders enough advice on this question."

ANOTHER class of livestock that has benefited from crossbreeding is sheep. Hybrid vigor shows up markedly as increased fertility and milk production in first-cross ewes. In order to make sheep pay, the owner has to obtain both a good wool crop and a good lamb crop from the same flock. At the present time no purebred will do this, so the sheepman has to rely on a system of planned breeding to suit his particular needs. The present uses of sheep crossbreed-



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*per hour on* **50 cents'**  
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Here's too good a bargain to miss: 50 cents pays the fuel bill to till and drill 12 acres per hour with this Cat D4 Tractor! The D4, owned by Philip Lucas, Vulcan, Alberta, is shown pulling 24' of oneway drill and packer. Other units pulled by this tractor include a deep tillage cultivator, rod weeder and hoe drill—each 24' in width. These wide hitches of equipment are pulled at sensible speeds, where they do their work best and last longest.

What does Mr. Lucas think of his D4? He says, "I like it fine! When I buy another, it will be a Cat Diesel Tractor!"

Small wonder, either—for the D4 has the flotation, weight and traction to translate horsepower into work-power. That's why in soft seedbeds like this, Cat crawler Tractors can pull up to *twice* as big loads as ordinary wheel tractors of similar "rated" horsepower, and accomplish

up to 60% more work per day, too. And despite wet spots in the field, or slick hillsides, work proceeds on schedule.

Then, there are so many extra jobs you can do with a Cat Diesel Tractor—jobs you couldn't handle with wheel-type tractors: digging ditches and ponds, clearing and forming land, building terraces, deep tillage and many others.

Isn't it time you investigated to learn how much more work you can accomplish—how much more money you can make with a Cat Diesel Tractor? See your Caterpillar Dealer for a demonstration!

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**DIESEL ENGINES  
TOOL BARS  
BULLDOZERS**

ing fall into three categories: (1) for fat lamb production, (2) for new breeds, and (3) to "grade up" a commercial flock.

One method used for the production of fat lambs is to mate ewes of the long and intermediate wool breeds with a "mutton" (Down) ram. A successful cross of this nature, used widely in New Zealand, is to use a Southdown ram (one of the best improvers) on Romney ewes. Another method popular in other countries is to cross fine wool range ewes, like the Rambouillet, with sires of a lowland

breed, such as the Leicester, to produce halfbred ewes. The wether lambs from this cross are sold as fat lambs, while the young ewes are sold to the fat lamb producer for mating to one of the "mutton" type rams.

The breeder who desires a separate true-breeding strain for some particular purpose or place, is advised to bypass crisscrossing or rotational crossing. About the only way he'll get a new breed which is completely independent of the two parent breeds is to continue to interbreed his first-cross sheep. Under this method, selection is

free to play its part in flock improvement. If all that's needed is to "grade up" a flock, about the only rule to follow is to use a high quality purebred ram of a distinctly different breed than the predominant breeding of the ewes—hybrid vigor appears to be negligible in sheep if similar types are used.

ONE of the most outstanding examples of hybrid vigor is the results obtained in beef production with the Brahman Cross. Imported from India (where it's known as the

Zebu), the Brahman varies widely from the British breeds, and is considered an entirely different race. It has been used with success in the United States to produce two new breeds, the "Santa Gertrudis" and "Beefmaster" (The Country Guide, February 1958) and two promising crossbreds, the "Charbray" and "Bragus." Crossed with the main British breeds for commercial beef production, Brahman bulls have consistently sired offspring which outperform the parental stock in every way, except perhaps in the feedlot. Brahman cattle seem to be more nervous in confined quarters than the other breeds.

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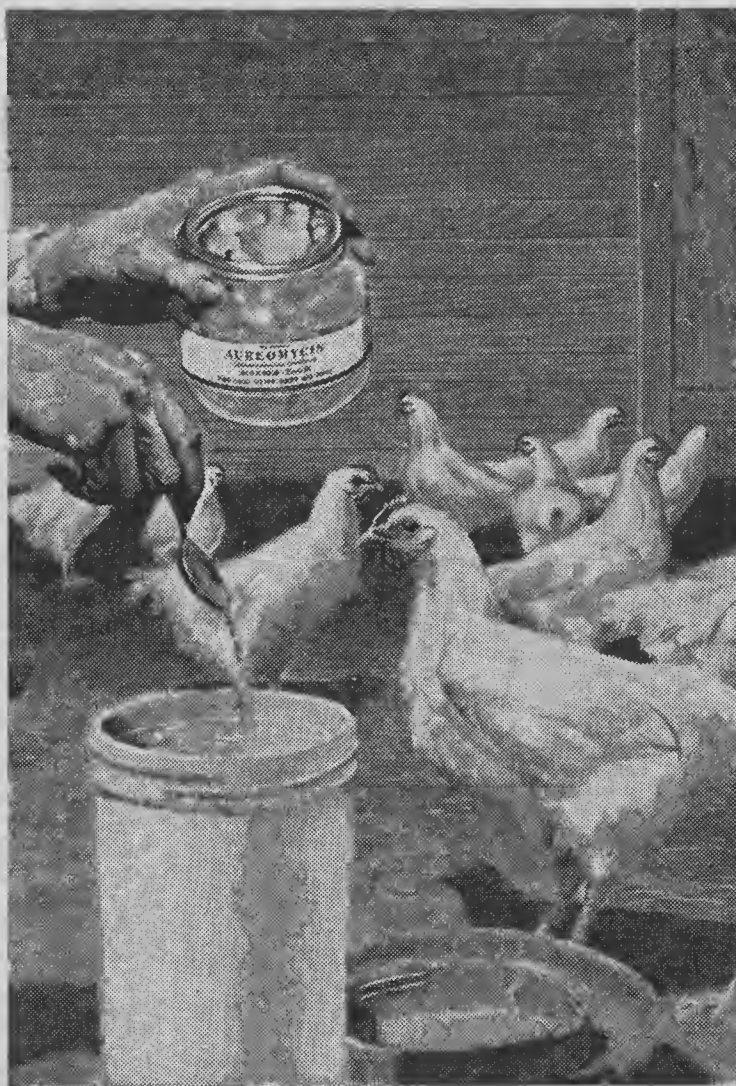
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THE systematic crossbreeding of dairy cattle has yet to gain favor in this country. Most dairymen have been content to improve their herds through selection within a single breed. However, in crossbreeding experiments conducted at Beltsville, Md., using the Holstein, Jersey, Guernsey, and Red Danish breeds, big increases in milk and butterfat production were chalked up by first generation hybrids, and smaller increases registered by succeeding generations from then on. One field where dairy crossing could make a big contribution is in the development of a high-yielding, heat-tolerant breed for tropical and sub-tropical regions. Some experiments along this line have been done in the United States using heat-tolerant Red Sindi cattle (imported from Asia) on heavy producing American breeds. But this work has been hindered through a lack of suitable numbers of the Asian stock.

CROSSBREEDING isn't some new gimmick dreamed up to embarrass established breeds. Ever since distinct breeds of farm animals were developed commercial stockmen have crossed them to suit their particular needs. Most of the well-known British breeds were evolved through crossing, although breed societies now frown on the practice because they see it as a threat to their vested interests. Some breeders even predict that widespread crossing will eventually wipe out all purebreds to a point where the livestock industry will think only in terms of individual sires and dams.

This is hardly likely, however, because the commercial man will always need a well of stable breeding material to draw on or his breeding program is liable to get out of kilter. On the other hand, crossing is a valuable tool for the stockman just on environmental grounds, apart from any hybrid vigor involved. A breed which proved ideal for Lincolnshire, England, might not do so well in sagebrush country south of Medicine Hat.

Cattle, sheep, and hog producers who want to increase yields through planned crossbreeding are able to call on plenty of expert assistance today. As far as poultry crosses are concerned, this business has become so complicated the commercial man is well advised to buy his eggs or chicks from those who've made a study of it. But any breeder who uses poor quality stock, and fails to plan his breeding program, is headed for trouble from the very start. Lack of these two essentials is a sign of poor management, and no amount of crossbreeding will compensate for that. V



Continued from page 13

## WILL AN ACCIDENT COST YOU YOUR FARM?

However, Zimmer didn't do so. Instead, he went to a city some distance away and got a job at an automotive plant. Then, at a social gathering one evening he met a lawyer, who asked him about the scar on the back of his hand.

"I got it working for a farmer," Zimmer explained.

"What did you get out of him?" the lawyer asked.

"He paid all the expenses."

"Look," the lawyer told Zimmer, "I can get more than that out of him. Why not let me handle this?"

"Okay," the ex-hired-man agreed.

Next day, this lawyer wrote Ross Phalen a sharp letter demanding \$1,000 for his client, claiming Zimmer had lost the use of a finger as a result of the deep gash.

Phalen worried about the letter for a while, then drove into town and showed it to his own lawyer. "What'll I do about this letter?" he asked.

"I'd strongly advise you to pay the \$1,000 and have this matter settled out of court," Phalen's lawyer advised. "If it goes to court it may cost you considerably more than they're asking."

So, in addition to the doctor's and hospital fees, Phalen paid the \$1,000.

**R**OSS PHALEN'S lawyer was right. Actually, the farmer got off lightly. A recent accident, involving loss of a finger, cost the Ontario Compensation Board almost \$4,000.

Luckily for himself, this western Ontario farmer had applied for protection on his own behalf, as well as for his employees. It was wintertime, and he was spreading manure on a newly seeded field. Something went wrong involving the beater on the spreader. The farmer stopped his tractor, and went back to have a look. Just as he lifted a chain, the tractor rolled ahead, pinching his middle finger between the chain and sprocket. The finger had to be amputated. In addition to having medical and hospital fees paid, this 48-year-old man was awarded a substantial amount for permanent disability.

Actually, many a farmer has found that he himself needed protection as well as his employees, and is thankful he put in the special request. Hired help was not entirely responsible for the alarming record of one accident on every fourth Ontario "covered" farm. One farm owner was merely going down the steps from the barn floor to the stable when he slipped and tumbled to the bottom of the stairway. When he tried to get up, he couldn't. He'd broken his back. The Board paid expenses amounting to more than \$600.

The Ontario Workmen's Compensation Board is not a political institution. It receives no grant whatever from the provincial or federal governments. All claims are paid out of fees paid in by employers. It is a non-profit organization, retaining only the fantastically low figure of 8 per cent

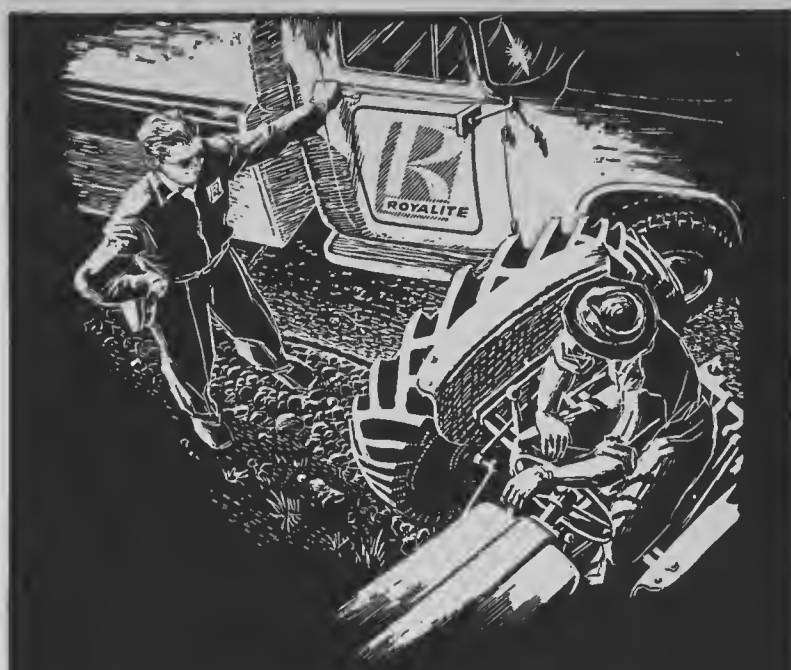
of funds collected to cover overhead and other expenses.

This means that when you, as a farmer, pay in your assessment, 92 per cent of that assessment is paid out in claims. The service is there—the Workmen's Compensation Board is willing to continue accepting applications from farmers throughout the province who wish to avail themselves of the benefits offered under the Act. Board executives willingly speak before farm groups whenever requested, explaining details of the Act for the benefit of those interested. Often, the executives do so on their own time, being all too aware of the hardships and tragedies which so often follow farm accidents.

**A**NXIOUS to reduce these tragedies, the Board decided to conduct a 3-year survey to find out which types of accident were the most prevalent on farms. Their findings are surprising.

"From the total number of claims over the 3-year period," explains Mr. George J. Beach, executive liaison officer of the Compensation Board, "we selected 1,512 typical ones. The survey shows that slips and falls caused the most farm accidents. Almost as many were caused by farm machinery other than tractors. That is, tractors were responsible for fewer accidents than were other types of farm machinery."

Third on the Board's frequency list are accidents involving livestock. Then come infections—that is, poisoning and festering caused by such things as stepping on rusty nails.



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Sprains, strains and hernia come fifth in the list, followed by the handling-of-timber mishaps and farm woodlot accidents.

"Surprisingly," continues Mr. Beach, "tractors are away down in seventh place, only slightly ahead of accidents caused by falling objects, foreign bodies in the eye, and burns and scalds."

A great number of these accidents were preventable. Farmers as an employer group put in, proportionately, twice as many accident claims as do dynamite and fireworks manufacturers. The owner of a high-explosives firm can get coverage for his employees for half the assessment that a farmer can. An employee working with nitroglycerin or making torpedoes runs half the accident risk that a hired man does on a general farm. That's because the high-explosives worker is more safety-conscious.

Even in the light of these facts, one Ontario agricultural representative had difficulty in persuading a farmer in his district to protect himself under the Act. Only by the representative's pleading was this man persuaded to send in his application and assessment. Two weeks after, the farmer was pulled over the plow handles and had several ribs broken. The Board paid all expenses.

AN eastern Ontario farmer acted almost too late. He'd hired two men to cut wood for use on his farm, and belatedly sent in his assessment and application. While the letter was unavoidably delayed in the mails, one of the hired men broke a leg. Since the application was made in good faith, however, the Board accepted responsibility.

While such a workman is temporarily disabled, he receives compensation on the basis of 75 per cent of his average weekly earnings for the 4 weeks immediately preceding the date of the accident, up to a maximum

payment of \$72.11 per week. If he's permanently disabled, awards are considered on both a lump-sum and pension basis, depending on the severity of the disablement. These awards are based on 75 per cent of the average earnings for the year prior to the accident.

But what if he is killed?

Perhaps the answer can best be given by citing the case of Henry Lamer, a 57-year-old farm supervisor who was killed on the highway. Lamer's boss owned three farms, and the supervisor was driving from one to the other to feed young chickens. It was sleeting. Apparently Lamer swerved onto the shoulder of the road to avoid an oncoming speeding car. The shoulder was slippery, and the car went off a culvert.

The supervisor was the father of two boys, both attending high school.

Only hours after the accident, the widow received from the Board a cheque for \$200 to cover immediate expenses. Later, the Board paid an additional \$200 toward the funeral.

Today, Mrs. Lamer is receiving a pension of \$75 a month and will continue to do so until she dies or remarries. If she marries again, her pension will stop. But she'll be given a lump sum equal to two years' pension.

For each of her boys, Mrs. Lamer received \$25 a month—\$50 for both. The youngest, Hugh, was 15 years old. If he left school, the payment on his behalf would terminate at age 16. But if he followed the example of his 17-year-old brother Charlie, and continued with his education till he was 18, his mother would continue to receive the payment on his behalf.

The fact that the employer had his supervisor protected under the Act saved him from ruinous court proceedings. This accident has cost the Workmen's Compensation Board more than \$16,000.

Don't let a similar accident cost you your farm.

*Continued from page 15*

## OFF THE BEATEN TRACK

die they will leave behind them—money, mansions and machines! What will we leave? A few pony trails, a blaze on a tree here and there, a worn-out saddle, rusty spurs, run-over riding boots, a rusty old rifle, and that's about all! Not much for a lifetime, maybe, but there's me—I'll be leaving a boy behind with a name of one who has ridden on away before me—Charlie Russell.

Maybe, someday, he'll be camped on the Palliser or the Cross and he'll say to his partner, "My dad blazed that big lodge-pole pine there years ago. We were camped here that fall for hunting. He shot a big elk up there on that slide—shot it with his old rifle, too! Yeah, an' this old saddle here, he had just bought it new, and see those marks on the cantle there? A "porky" done that right there under that spruce. Boy, was he ever mad! Just like the time, too, we came here and some dudes had burned up his

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tepee poles. That's the time he cut that set we're usin' now. That rock oven — yeah, he built that, too.

"You know the old-timers sure left their mark on this country. One time I saw a tree my great granddad blazed an' . . ."

Someday, pardner, we'll take a trip with pack-ponies, rifle and a tepee. We'll lose ourselves in the mountains for a month or so, and just travel and camp, fish and hunt, move again and camp again—no hurry, no fuss, just doing like we want to do. No hurry to move today, we'll go on tomorrow,

or maybe even the day after. We've lots of time. I saw a bear track today that I'd like to follow!

That's one reason I would like to keep a pack-string around. Then we can always take off into the hills, over the passes, and have a good look-see at the head of the White or the Paliser, or across to the Whiteman Pass.

In our time alone we'll see most of this mountain-land opened up with roads. A man will have to really keep to the high-country to avoid civilization—keeping off the beaten track! ✓

Continued from page 14

## FEUD IN THE CHILCOTIN

Joan's eyes filmed as she looked at him. Long, grief-stricken years had left their mark. He seemed so old, so frail now, so alone.

She turned to Len, his face now white and strained.

"You . . . you can see, dear," she choked slightly, "I can't desert my grandfather."

NEXT day, her face wan from a sleepless night, a determined Joan smoothed her grandfather's pillows, and lowered the blinds of the big windows against a blaze of afternoon sunshine.

"I'll be away several hours, Paul," she whispered to the old halfbreed servant. "Tell my grandfather when he awakens I have gone to town to order supplies."

But it was not toward town she urged her horse. Despite a now foreboding sky, she turned the animal across the low range of hills that divided the Houlden lands from the Hall property. She meant to beard old Mark Hall in his den.

It was storming hard by the time she gained an indistinct trail. Following it, she came upon a nest of ramshackle buildings and at last confronted the first ranch house Mark Hall had built.

"Who's there?"

Joan's heart skipped a beat at the suddenness of the voice coming from behind her. In the misty half-light she made out Mark Hall's still erect form and shaggy head.

"Who are you and what do you want?" he asked.

"I'm Joan Houlden," Joan replied. "I came here to talk to you, Mr. Hall."

"So, you're old Martin Houlden's granddaughter, eh?" he commented as Joan dismounted and tethered her horse. "Well, come in, young lady, and say your say."

Leading the way into the living-room he groped around for an oil lamp.

"Sit down," he invited, as the yellow light flared up. "Guess we should have a bit of fire to stop that shivering of yours."

Speaking quickly she told him all. "So," Mark Hall commented as she finished, "you and Len want to get married, but your grandfather won't hear of it? Personally, I like the idea."

"Now let's forget Len and me," Joan replied quaveringly. "My grandfather is worrying himself ill at the thoughts of foreclosure. I'd like to be able to reassure him, if . . ."

"Pah! Tell him not to worry. I'm more interested in you and Len. Len's my favorite and I'm mighty glad he's chosen you." The dark eyes softened, became almost wistful as Mark Hall went on: "And just looking at you brings things crowding back. It was mighty nice of you to visit me, and I'd like to tell you a bit of history. But first I'll show you what I got for the girl I first wanted for my bride. I've hung on to them all these years to give to the girl who marries Len."

"But we're not . . ." Joan began and stopped as, ignoring her protest, Mark Hall got to his feet and disappeared into the shadows. She heard the jingle of keys, a creaking of rusted hinges, and a thud as of a trapdoor lifted and let fall. Then silence.

Getting to her feet she stared about her apprehensively. A shivering streak of lightning flashed full in the window and seemed to sear her very eyes. Another sizzling flare came and a scream caught in her throat.

"A bad flash, eh?" Joan jumped as Mark Hall's voice came from behind her.

"Now," he dropped a heavy steel document box upon the table, "maybe this'll make you forget the storm." He inserted a key in the lock. "You've likely heard the local tales about old Mark's treasures. Well, now you're going to see them, and I'll tell you why and how I got them."

LIFTING a velvet bag from the box, he untied the string, and, as the sack fell open, Joan saw unset jewels. They glittered in myriad colors.

"There, young lady," Mark Hall smiled. "Worth a visit, eh? I wonder if they'll come to you and . . ."

"Now, you sit down again in that chair, and I'll sit on the table here and tell you a bit of history."

"I'd like to hear it," Joan admitted. "But first tell me why you and my grandfather have been such bitter enemies all these years."

"Why?" Mark Hall chuckled suddenly, surprisingly. "Because, young lady, Martin Houlden stole from me the first girl I ever loved."

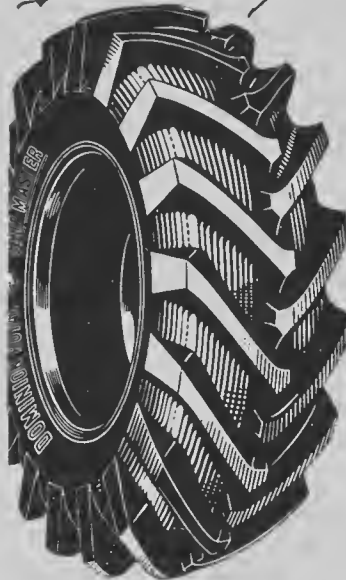
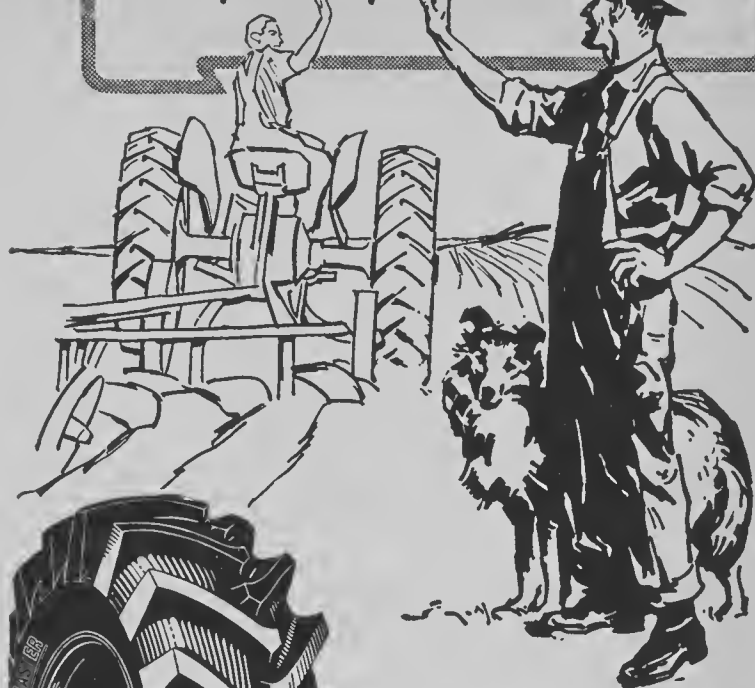
Joan gasped. "My grandmother."

"Yes." The grizzled head wagged slowly. "Her name was Nora and she was pretty wonderful."

"Oh, tell me all about it." The storm momentarily forgotten, Joan leaned forward eagerly.

"It seems like but yesterday that Nora and I used to go riding in the

"You were right, Mac they really GRIP"



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### Notice of Dividend No. 48

### United Grain Growers Limited

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Notice is hereby given that the Board of Directors has declared a dividend at the rate of 5% on the paid-up par value of Class "A" (Preferred) Shares (par value \$20.00 each). This dividend will be paid on or about September 1, 1958, to holders of such shares of record at the close of business on Saturday, July 26, 1958.

By order of the Board.

D. G. MILLER,  
Secretary.

July 8, 1958.  
Winnipeg, Manitoba.

# NOTICE

## To Saskatchewan Residents



• Beneficiaries of the Saskatchewan Hospital Services Plan who leave Saskatchewan for the purpose of establishing residence elsewhere are eligible for coverage under the Plan during the three-month period following the date on which they establish residence elsewhere. To obtain this protection, however, they must be in possession of valid hospital services cards covering the three-month period. Beneficiaries who plan on leaving the province during the last quarter of a calendar year, therefore, should arrange to pay the hospitalization tax for the following year before November 30. When they have established residence elsewhere, pro rata refunds will be provided on application. For further particulars, consult your local hospitalization tax collector.

• New residents of Saskatchewan are required to participate in the Saskatchewan Hospital Services Plan after they have resided in Saskatchewan for three months.

• Indian residents of Saskatchewan who have resided in the Province for three months and apart from Indian reserves for twelve months are also required to participate in the Plan.

• Before expiration of three months' residence in Saskatchewan, new residents should register themselves and their families and pay the required hospitalization tax to the tax collection office of the city, town, village, rural municipality or local improvement district in which they reside.

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hills," Mark Hall began. "There was one place on the ridge where she said the colors were like precious stones. I used to tell her that some day I'd buy her 'pretty stones. I did get them, slowly, one at a time.

"But before I gave them to her, she suddenly turned about face and ran away with Martin Houlden. He was older than me, better educated and better fixed in those days. That hit me hard."

"And yet my grandfather has suffered the most," Joan reminded softly. "He lost her the next year when my father was born. But you . . . you found another girl, reared a fine family and built up the Hall holdings. My grandfather's life has been very lonely. Since my father and mother died, I have been all he has."

"Yes." Again the grizzled head wagged. "I've been lucky. I forgot all hard feelings the day I met the girl I married. A better partner no man could have wished for. I've been mighty busy through the years, but often I'd wish that your grandfather would come to me, man to man, and . . ."

"Oh, you know he'll never do that," Joan interrupted, adding, eagerly, "Why not you go to him, Mr. Hall?"

"Never." The rugged jaw set firmly. "Your grandfather made the first wrong move and . . ."

He broke off abruptly, jerking convulsively erect, his feet sliding to the rough flooring as there came a flare of lightning that crackled so furiously across the stormy sky it seemed to split the very heavens.

Joan jumped to her feet, dazedly aware that she had screamed, that there was a gaping hole in the cedar-shake roof, that the steel document box was now a twisted, glowing mass of metal.

"Mr. Hall . . ." she began, and moved toward him. Mark Hall did not reply, and Joan saw why. The fine dark eyes were no longer seeing clearly, they were dazed, filmed, and even as Joan reached his side, his body began to sag.

**L**EN emerged from the thicket in which he had taken shelter from the first of the thunderstorm, and turned his horse once more in the direction of the old ranch house. It had been weeks since he had paid a visit to his grandfather, but now he was on his way to argue Mark Hall out of taking advantage of his claim on the Houlden lands.

His thoughts were all of Joan as he rode gloomily on, until something caught his eye—what appeared to be a wisp of smoke. For a moment he stared, then clapped spurs to his horse. Down the ridge he galloped at top speed and through the jungly orchard. Now he could also see a fiery glow.

Flames were spurting through the roof and windows when he drew rein at the old place. Leaping through the doorway he saw Joan, face grimy and hair awry, struggling with the heavy, unconscious form of Mark Hall. Together they dragged the old man out into the open.

Meanwhile, across the hills, Martin Houlden paced up and down the floor of his den in a grim silence more frightening to the old servant, Paul,

standing in the doorway, than his first outburst of anger. They barely heard the big clock in the hall chime midnight. For hours now Martin had been going on like this, ever since Paul had given him Joan's message. What would keep her in town so long?

He stopped pacing abruptly at the sound of horses approaching. Paul stumbled excitedly down the hall. He reached the front door in time to see a small cavalcade rein to a halt. It was at the third rider old Paul stared, at Mark Hall, his face white and strained beneath the tan, but his eyes glowing with purpose.

"Where's your master?" Hall barked as he dismounted. "Too flustered at seeing me to answer, eh? Well, I'll find him."

He strode purposefully into the house.

Paul, aghast, turned bewildered eyes to Joan. Len had slipped to the ground and lifted her from the saddle. He now held her in his arms.

"Oh, Len!" Joan clutched at his chest. "We shouldn't let him go in there alone."

"I agree," Len nodded.

**J**OAN led him to her grandfather's den. Old Martin Houlden was on his feet, staring wide-eyed at Mark Hall as though he were a wraith.

Mark Hall then briefly recounted what had happened, ending: "Does any reason now remain for our not being friends, Martin? Are we to let the years-long misunderstanding between us stand in the way of Len and Joan's happiness?"

"Yes!" Martin Houlden craned forward quiveringly, resentment leaping in his eyes. "This moment of danger and sentiment does not alter the fact that it is you . . . you . . . who holds the mortgages on all my holdings."

Mark Hall smiled quietly.

"Martin," he said, still speaking gently, "I never registered the mortgages and would never have used them. Now they no longer exist. I had the papers in the steel document box the lightning-bolt destroyed. But the stones won't be harmed . . . we'll find them by sifting the ashes."

"But you took them out. You . . ."

"Martin," Mark Hall interrupted quietly, "years ago, when I tried to explain the mortgages, you flew off the handle and refused to listen. So I climbed aboard my high horse. Now please listen. I hastened to take out those mortgages to prevent some greedy outsider from taking advantage of you. I looked on the money as a loan. Now the two families are to be joined . . . well, it's all in the family, so the loan no longer exists. In the few years left to us . . . Oh, hell, Martin, let's be friends again."

"I . . . I," Martin Houlden's throat worked and his voice broke as he grasped Mark Hall's outstretched hand. Joan could not see how their eyes had filmed, for her own tears were now blinding her.

Holding her close, Len had to clear his own throat before he could say to Paul, hovering in the doorway, "Paul, what we all need badly just now is coffee and sandwiches."

The old servant was smiling broadly as he hastened to obey.



## First Steps

**I**F they can be guided, just a little, first steps often break into a confident stride and end in achievement. Like the small boy receiving instruction from his father on how to fly a kite: it's up, and currents are tugging hard. In a second the lad may be forced to think quickly on his own. Soon he will have controlled the runaway, and kiting will be a simple game that turns to sport with a change in wind velocity.

Knowing when to let a fledgling go his own way is a wisdom nature has given parents of the feathered world; she cannot control the more complex human, so surrenders the field to older, more experienced humans. Even for these learned beings, guiding a youngster can be harassed by unprecedented pitfalls.

Poetess Elinor Lennen wrote down a new development as she watched her son grow up:

*Did this boy find a hidden door?  
 At dinner time he took a chair  
 As if he'd eaten here before,  
 But when I smiled, the answering stare  
 Told me this form was a decoy—  
 His size, his clothes—to fill a place  
 Until my heart gives up that boy  
 Who told all secrets in his face.*

Perhaps the recent findings of Dr. Arnold Gesell, respected American authority on child development, can be of real assistance to parents wondering at the inconstancy of youth. After nearly 15 years of research, he has decided adolescents undergo year-to-year and stage-to-stage behavior changes in their climb toward maturity. The average 11-year-old is rebellious and jealous; age 12 "loves" everything, and is an organizer; the 13-year-old is withdrawn, worried; age 14 is fun-loving, needs to be checked and planned with; age 15 adopts a "don't care" attitude, is restless; the 16-year-old is happy, self-assured, with more resistance to mob influence.

Not every child will act in these ways, and so parents must continue to rule firmly but a little more sensitively than earlier generations would have favored. When it is needed, let there be a steadying hand. v

by RUTH GILL



[Bob Taylor photo]

BRITISH COLUMBIA

ALBERTA

# \$65 Plus

by

L. JOHANNE STEMÖ



Crossing Kootenay Lake, Sixty-five Plus rested on the lower deck.



SIXTY-FIVE Plus crashed into my life with the kind of diplomacy Grandfather used when he tired of daughter Susan's date on a Sunday evening and descended the stairs in his long johns.

I turned down the lane to put the family car away and found myself confronted with a '29 model Ford, its insides spilled about the garage floor. The direction of my teen-age son's conversation, during the past few weeks, was suddenly clear—the references to Model A's, spark plugs, brake bands, ignition, pointed to this, this heap.

"What do you think you're doing?" I voiced, blending motherly indulgence with a touch of iron.

"She's got a lovely engine, hasn't she?" Was this my son under the gobs of grease?

I retreated, a little afraid of the rebellion that lay suddenly in his eyes.

"I've bought it," he said defiantly, "for \$65 . . . she's mine."

He looked at me with the clear-eyed gaze of the young. "Going to come with me to Gramps for my holidays?"

"Over the mountains in that thing?" I sputtered. "Don't be silly, you don't drive a thousand miles over mountain roads in a \$65 vehicle." Looking down at the mess of parts on the garage floor, I suddenly felt better. At least Mr. Fixit couldn't drive the thing in this condition. And what could he possibly know about putting a car engine together?

"I'm putting in new brake-linings. Don't worry, she's going to be safe."

"It's still no," I said.

I didn't want to go over mountain roads in a '29 model that cost \$65 . . . \$65 plus, that is, for

it was still a few dollars worth of parts short of going anywhere. It could conceivably take all the money he had saved from his summer job.

IN the days that followed I was torn between a bursting pride in the mechanical genius of my son and a dread fear that he would actually get the old car to run. I was, of course, resigned to the inevitable outcome . . . Sixty-five Plus idled with a maidenly uncertainty, chugged and spit, leaped playfully around the block, and came to a beautiful and vibrating halt in front of me.

"What do you think of it?" the owner asked proudly.

It was my move. "I might consider going but you'll have to take the American route."

"I'm going Canadian," he said, justifying my years of instilling in him a love of his country.

"Not me," I said.

The outcome was once again inevitable. We drove out of New Westminster, into the early morning sun, across the long arch of the Pattullo bridge spanning the Fraser, and into the green and gold beyond.

September. Say it over and over like a song. A time when earth arrays itself in a final burst of color, when geese wing south, and crisp autumn mornings stir the lethargic blood of children on their way to school, when tag ends of humanity send a last lingering look down vacation trails before heading home. Fixit himself would be starting college in a few weeks. Perhaps this trip was his farewell to carefree years.

We were all of forty miles from home when Sixty-five Plus began to sputter and Fixit pulled to the side of the road and lifted the hood. "Tell me," I said, always having wanted to know, "what do you guys see when you lift the hood and stare into the insides like that?"

He frowned painfully and began testing spark plugs. We made it to the next gas station. The

attendant fixed us up with a new distributor cap and a tankful of gas. "Think she'll get us to Alberta?" I enquired hopefully.

"Hm," he said and scratched his head, looking us over with new interest. He checked our tires briefly.

Fixit beamed. "I don't expect any trouble . . . maybe a flat. But I sure hope not."

The road was a smooth ribbon, the morning full of the tang of autumn, of farmers and fields, of apple pickers, of cars and trucks and cyclists. We were almost at Hope when I caught the strong smell of escaping gasoline.

IT was two o'clock before we were able to leave Hope. The leak had been repaired. We had come almost 100 miles. Already we had mailed the first postcards, bought the first souvenirs and done a page of notes on the journey. Happily expectant and filled with excitement, we turned out of town onto the polished blackness that is the Hope-Princeton Highway. It rose and dipped and curled endlessly before us. Cars and trucks and buses, all sizes and makes, passed and repassed while the grandeur of the country left us breathless. On that wide expanse of road whose cost topped the million mark, nothing seemed quite so unimportant as Sixty-five Plus and its two occupants.

Sixty-five Plus began the old sputter. We carried on for another mile, then came to a reluctant stop. We changed spark plugs. We covered a mile. We changed spark plugs, another mile. The sputter grew.

By late afternoon we passed Allison Pass Summit. Green lawns and great cleared spaces marked Manning Park, spoke of the work of man, but the silence was a reminder of wilderness. The filling station farther along did not look promising, and the attendant was only a boy, but he had the kind of mind that works from cause to effect. The distributor cap was off. Sixty-five Plus roared and

sputtered as the two of them adjusted spark and gas.

"Maybe you'd like to go up to the cafe to eat," said Fixit.

"Why don't you both go?" said the lad with the cause-and-effect mind.

Fixit wouldn't come and so I waited too, my stubborn, dubious mind unwilling to concede that this could be the end. In less than twenty minutes they had discovered the cause of all the trouble and wired a piece of mechanism into place.

With the first touch of the starter she roared then settled back to a faithful chug. We drove slowly, because the lights of Sixty-five Plus had dimmed with the years and the traffic was heavy. When at last we hit the long down grades into Princeton she spat and roared like a two-barrel shotgun gone temperamental. At the bottom Fixit went tense and then hanging onto the wheel, he pulled to the side of the road.

We had a flat.

I gathered that our spare had a dubious worth and was intended to serve only in a "pinch." I pointed the flashlight while the exchange was being made and we both breathed a sigh of relief when the jack was removed and the air held. Too tired to put our camping equipment together, we spread our tent for a groundsheet and rolled up in blankets for the night.

Hours later we were awakened by a nightmare of sound that shook the earth. Terrified, we leaped to our feet in a confusion of blankets. Alarm subsided as our sleep-fogged minds accepted the fact that we'd chosen a railway line as a roommate. For the rest of the night we slept fitfully, between the passage and shunting of freight cars.

THE morning air held a nip, almost a feeling of snow. The road was empty of traffic, the world asleep. We set up the Coleman stove and fried some bacon. And then the sun came out and the bite of the morning became a memory. Fixit checked the flat. We reorganized the blankets, the groceries, the water jug . . . especially the water jug, now that we'd reached the dry Interior.

Somewhere along the way Sixty-five Plus had developed a shimmy. We drove into the biggest garage in Princeton. "Now we get her fixed right," I said. "One night sleeping on top of a tent is enough."

The big garage had helpers and assistant mechanics and head mechanics. They gathered, they shook their heads, they went into conference, they looked some more. They had equipment to perform major operations on the shiny cars that came their way and the kind of customers that go with the shiny cars. They found a great many things wrong with Sixty-five Plus, and not any that were right. They said labor was high. They let drop a gentle hint that Princeton had an Auto Wrecker.

Low in spirit, but open in mind, we drove away. Around a corner, a new garageman paused in his work. "Yah," he said, "the town's growing. No," he wasn't quite ready for business yet. And then I could have laughed out loud, because I saw his eyes going over Sixty-five Plus, and I could tell he was a "fixer."

He inserted a washer, tightened a nut. The shimmy was a thing of the past.

The country turned from gray to brown to gold. Cattle grazed. Traffic passed and repassed. Hunters were on the move. Orchards came into view and the ever present flumes that make a green Eden of the sere and barren hills. Up and up we went, down, down, down. Winding, turning . . .

It was in one of the big shining garages of Penticton that we met ourselves . . . another '29 model. The owners were a couple of boys from the East, who had come out on an apple picking tour. Fixit and the two shared their experiences, and an hour passed.

IN the middle of the afternoon the fairy setting of the Osoyoos country met us. We could not resist the lake, the weeping willows, or the cabin framed by twinkling lights. We ate and swam and slept and rose in the pre-dawn.

The air was tangy as wine, and the mists curled in from the hills, and the grade rose. Behind us the valley spread like a giant patchwork. Then the morning's early promise faded. Rain fell. We dug out rainwear, since the lack of windows in the old jalopy was convenient in the sunshine but no protection now.

"The windshield wiper works!"

"Of course it works," said Fixit.

The road was no longer a shining ribbon. It was fair, then bad and we made a detour for construction gangs. Fixit was back under the hood. "It's the fan belt," he said with a nonchalance in which I was beginning to have faith. He whipped out a spare and fitted it into place. I was so proud I could have crowed.

Sequestered lakes, trickling water, blue haze and then Grand Forks spread out before us with its tree-lined streets, tidy homes and spacious gardens spilling forth bloom. The harvest of tomatoes, corn and cucumbers was in full swing.

"We turn south here," I said.

"The buses go over the summit," Fixit said.

"Only at night when the passengers don't know what's going on," I said.

"Anywhere the bus goes we can go," Fixit said.

To decide the matter, we asked a few people in Grand Forks. "It's rough," they said. "It's narrow. No work's been done there this past year. Over five thousand feet above sea level," they said. "A goat trail," they said. We went on.

The road was gravelly and washboardy in spots, with steep grades and hairpin turns. Below us, Christina Lake became a green misty pond. We were in another world. Sixty-five Plus was very close, very dear. Fixit checked her tenderly for oil and water. Boy, could she climb!

We passed an abandoned mine jutting out into the clouds. We stopped at the watering holes set at distances apparently tailored for Sixty-five Plus. The clouds and the mountains began to dribble rain. We lost all sense of direction as the road wound endlessly on. A dip stretched ahead for a short piece and we sped all of 20 miles to the hour.

(Please turn to page 48)



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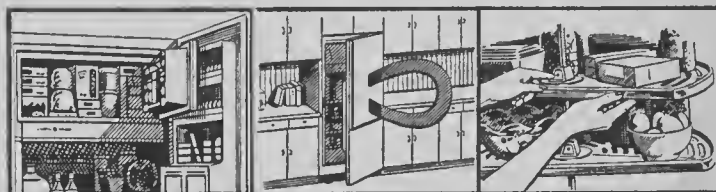


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# It's Pickling Time



[Richard Harrington photo]

Select firm, fresh fruits and vegetables for the pickles you make—pickles that will add new interest and flavor to your meals

by JULIA MANN

## Cucumber Chunks

1 gal. cucumbers 1/2 gal. onions  
1 c. salt 1 gal. water

Cut cucumbers into one-half inch chunks. If the onions are small, use whole, and if they are large, cut into pieces. Make the brine of salt and water, and let the cucumber chunks stand in it for 2 hours. Drain and wash well. Bring brine to boiling and add onions. Then bring the mixture just to the boil and add immediately to the hot vinegar. (This will keep the onions white and crisp.)

## Syrup

6 c. vinegar 6 c. brown sugar  
2 c. water 1 tsp. celery  
1 tsp. mustard salt  
seed 2 tsp. tumeric

Bring to the boiling point and add the onions and cucumbers. Simmer for 10 minutes. Seal while hot.

## Beet Relish

1/2 c. mustard 6 c. diluted  
5 c. sugar vinegar  
1 T. tumeric 2 T. celery seed  
5 qt. cooked beets 1 1/2 T. salt

Mix the mustard, sugar, tumeric, celery seed and salt together and add to the vinegar. Cook this mustard sauce for 5 minutes and add the cooked chopped beets.

## Chutney

4 lb. apples 2 T. salt  
4 lb. ripe 2 c. vinegar  
tomatoes 1/2 tsp. ginger  
1 c. onions 1 tsp. cinnamon  
1 c. raisins 1 tsp. cloves  
2 c. sugar 1 tsp. mustard

Chop or mince the apples, ripe tomatoes, onions and raisins. Mix the remaining ingredients with the vinegar. Mix together and simmer slowly for 2 hours.

## Tomato Relish

(uncooked)

7 lb. ripe 1 large onion  
tomatoes, peeled (or more)  
2 lb. celery

Cut up the vegetables and add one-half cup of salt. Let drain overnight or for a few hours. Then add:

6 c. white sugar 2 T. white  
2 c. vinegar mustard seed  
1/4 tsp. red pepper

Mix thoroughly and bottle.

## Variety Relish

12 large green 2 c. sugar  
tomatoes 2 red pepper  
6 onions 2 green peppers  
2 tsp. celery seed 1 tsp. curry  
2 tsp. mustard 1 tsp. salt  
seed 3 c. weak vinegar

Put tomatoes, onions, red and green peppers through the food chopper. Add the remaining ingredients and boil until thick. Bottle while hot.

THIS is the time of year when that tantalizing spicy odor of pickles wafts through kitchen doors and windows. Recipes, like old legends, have been handed down from mother to daughter through many lifetimes, and their contents have often been guarded almost as closely as their lives.

The history of pickles stretches so far back into ancient times that no definite date can be established for their origin. Certainly, the ancient civilizations of the Far and Middle East were familiar with their pungent and zesty flavor. Both Egyptians and Romans prized them as a delicacy, and appreciated the finishing touch they gave to a meal.

The first appearance of pickles in Western Civilization is also hard to determine, but they were well known in Europe by the 16th century. The word pickle itself is derived from the Middle Dutch "pekelen" and the Middle Low German "pokeln." Dutch and German homemakers were preparing pickled cucumbers in their kitchens around this time, and prescribing them for various and sundry ailments.

By the end of the 16th century, recipes for making pickles were appearing frequently in little cookbooks laboriously compiled for the use of conscientious homemakers. One of these early books, first printed in England in 1600, gives a recipe entitled "To prepare Cowcubers all the Yeere" and reads as follows: "Take a gallon of faire water, and a pottle of verjuice, and a pint of bay salt, and a handful of greene fennell or Dill; boile it a little, and when it is cold put it into a barrel, and then put your

Cowcubers into that pickles, and you shall keep them all the yeere."

From these simple beginnings more and more recipes for pickles appeared with increasingly accurate measurements and directions. It was during the 17th century that the first pickle crossed the Atlantic and established itself as a favorite of every food-loving American. Here are some of the recipes that have become all-time Canadian favorites.

## Mrs. Webby's Pickles

1 qt. green 1 qt. onions  
cucumber 1 qt. green  
1 qt. celery tomatoes  
1 cabbage 1 cauliflower

Cut the vegetables fine and sprinkle with salt. Let stand overnight. Drain and add 2 green peppers, chopped.

## Paste

1/2 gal. vinegar 5 lb. sugar  
5 T. mustard 1 c. flour  
1-2 T. tumeric

Boil these ingredients until thick. Then add the vegetables and simmer for 1 hour.

## Winter Salad

7 large cucumbers 1 T. salt  
7 large onions

Peel the cucumbers and onions and put them through the food chopper. Add 1 tablespoon of salt and let stand overnight.

## Dressing

3 c. sugar 3/4 tsp. tumeric  
1/2 c. flour 1 tsp. ginger  
3 c. vinegar 1/2 tsp. celery seed  
1 c. water Pinch of red pepper

Mix all the ingredients together and boil for 5 minutes. Drain the vegetables and add these to the prepared dressing. Continue boiling for 10 minutes. Bottle while hot.

# Stan, the Hired Man

by EVELYN WITTER

IN the 20 years we've been farming we've had every size, shape and personality of hired man in existence. But none stand out in my mind like Stan. He scared me silly.

His voice rumbled like thunder. His hair was red, brown and blondish and stood straight up. His eyes were bright blue and set in his head much like a hog's. He was well supplied with chest expansion and biceps.

He spoke some English, but mostly he expressed himself in a Slavic tongue. He never smiled or laughed.

"Couldn't you get some other man?" I asked my husband more than once.

Stan stayed on. I slunk away from him whenever I could, for the sight and sound of him brought horror stories to my mind.

Every morning he'd bellow, "Missus! I eat now!" In the darkness of early morning I'd waken in fright as if I were in a jungle and about to confront a wild animal. Then I'd mix a batch of pancakes the recipe said was for a family of four. He'd finish them all, with slobes of butter and syrup dripping from his chin. By the time my husband was up, I was a nervous wreck and Stan was well into the day's work.

I DON'T know how long I could have taken the tension of having Stan around if a sweet looking little blonde woman and five robust children hadn't arrived. One bright summer day they drove up the lane, and announced they were Stan's family.

Stan emerged from the tractor shed and let out an ear-splitting roar. He grabbed the woman and swung her around as if he were getting ready to hurl her into the back forty. The children, grins wide and happy, kept calling, "Daddy! Daddy!" He kissed them all and patted their brown-red heads. Affection and love took hold of every line in his face. And what was more surprising was that his wife and children looked at him as if he were from Olympus.

"I send for them," Stan said, finally remembering me. "We got enough money now. We rent a farm of our own."

Since then, I have heard that Stan owns a farm. He has sent several chil-

dren through college, has been named to leading positions in his community, and is admired and liked by all.

But these reports are not totally unexpected. I learned what kind of a man Stan was from the looks in his wife's and children's eyes when they met him at our place. What dismays me is that I was so wrong to judge a man by appearance alone. If I had expended the energy toward understanding that I used up in fear, how much richer our lives would have been and how much pleasure we would have had from friendship with a really fine man. ✓



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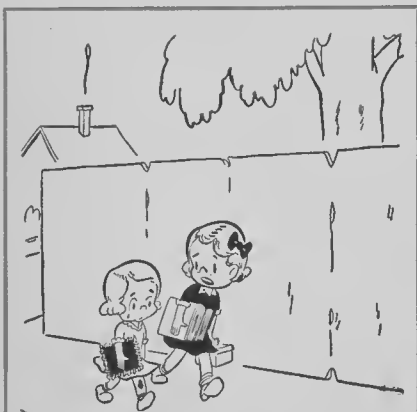
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# The Prettiest Wedding



A

8704

## No. 8486

Double-Duty princess line dress with shorty jacket that ends just at the Empire bodice. With eyelet bodice and jacket, it can be a wintertime flower-girl or junior bridesmaid dress; make a second jacket to match skirt fabric (perhaps taffeta), for winter party wear; or make the complete outfit in one fabric. Sizes 7, 8, 10, 12, 14. Price 50 cents.

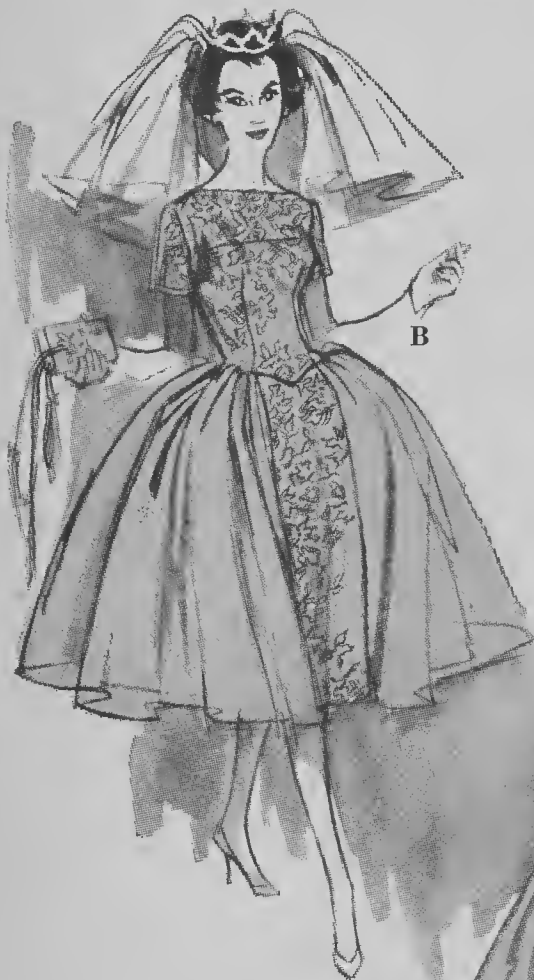


8486

## Very New Designs

## No. 8704

Basque Waistline on all, yet from this one pattern a bridal party can be dressed in quite individual styles. "A" view features applique on a scalloped bateau neckline, and lace or sheer overskirt; "B" shows lace and sheer in the flounced overskirt; "C" is beautifully simple, with V-neckline. All variations have slight V-neckline back. Sizes 10, 12, 14, 16, 18. Price 75 cents.



B

8704



C



8700

## No. 8700

Petal Hemline is feature of short bridal dress (above). Pattern also includes similarly designed traditional floor-length gown, and street-length bridesmaid dress with attractive Empire criss-cross waistline. Suggested fabrics: taffeta, satin, lace, brocades, velveteen. Sizes 10, 12, 14, 16, 18. Price 75 cents.

These Butterick patterns may be obtained from your local dealer or from Department H, The Butterick Company, Inc., 528 Evans Ave., Toronto 14, Ont.



# Working with Lace

Save these sewing tips for handy reference



## GATHERING LACE

Basic requirements for sewing lace: a small needle, fine thread, and small stitches. Gather lace by pulling a thread in its straight edge. Wrap end of thread around a pin to prevent pulling out. Hold other end of thread with left hand and adjust gathers.

## LACE WITH MITERED CORNER

A—Inside

A—Pin lace edge around corner of garment, allowing sufficient lace at corners for miters. Baste miters.

B—Inside

B—Remove lace. Stitch seam and trim. Overhand raw edge.

C—Outside

C—Baste lace to right side of fabric. Stitch.

D—Inside

D—Overhand raw edges of fabric on wrong side.

## OVERHANDING LACE TO HEMMED EDGE

Pin lace to hemmed edge of fabric, right sides together. Hold with lace toward you. Overhand fabric and lace together. Keep stitches close together.

## WHIPPING ON LACE EDGING

Roll edge of fabric and sew on lace in one operation, using whipped stitches.

## SETTING IN LACE INSERTION

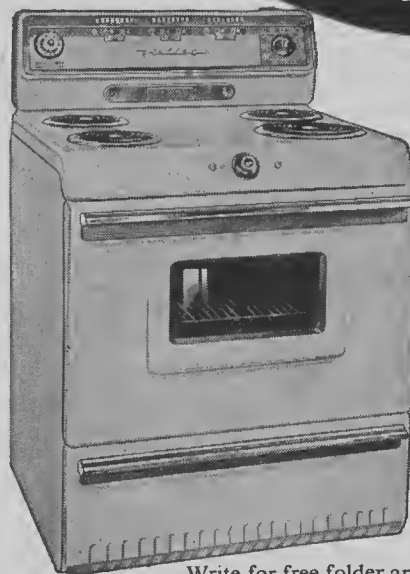
A—Baste insertion to right side of fabric. Sew both edges with fine hemming stitches.

B—Trim away fabric on wrong side under insertion, leaving very narrow edge. Roll and whip edge.

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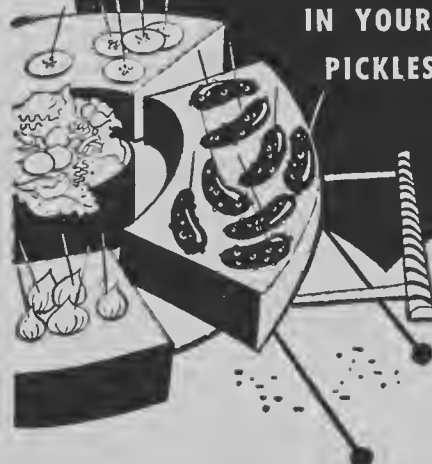
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## United Grain Growers Limited NOTICE

In accordance with the Income Tax Act, this will advise our customers (including both members and non-members) as referred to in the said Act, that in accordance with the terms and conditions, and within the times and limitations contained in the said Act, it is our intention to pay a dividend in proportion to the 1958-59 patronage out of the revenue of the 1958-59 taxation year, or out of such other funds as may be permitted by the said Act; and we hereby hold forth the prospect of the payment of patronage dividend to you accordingly.

The foregoing notice applies to grain delivered to this Company between August 1, 1958, and July 31, 1959.

UNITED GRAIN GROWERS LIMITED  
D. G. MILLER,  
Secretary.  
Winnipeg, Man.

## Notice of Dividend No. 48 United Grain Growers Limited Class "B" Shares

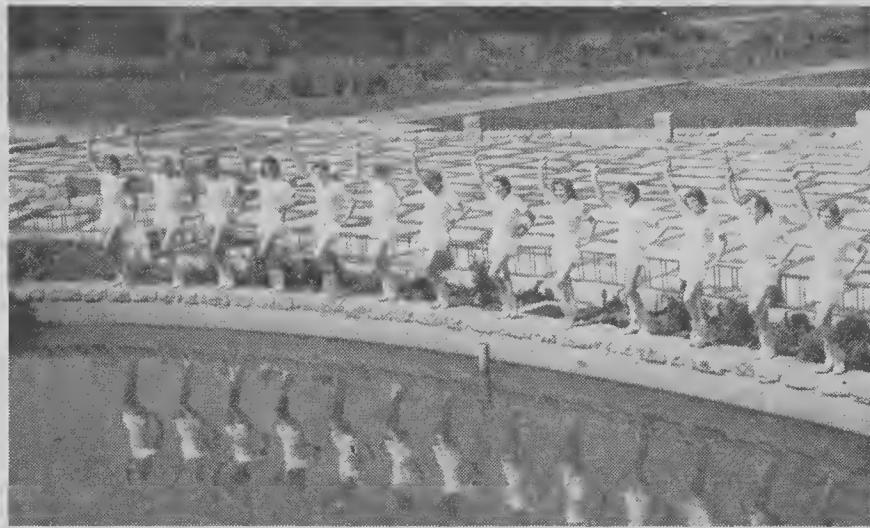
Notice is hereby given that the Board of Directors has declared a dividend at the rate of \$1.00 per share on the paid-up par value of Class "B" (Membership) Shares (par value \$5.00 each). This is out of earnings appropriated at the rate of 25 cents per annum in the four-year period ending July 31, 1958.

This dividend will be paid on or about September 1 to holders of such shares of record at the close of business on Saturday, July 26, 1958.

By order of the Board.  
D. G. MILLER,  
Secretary.

July 8, 1958.  
Winnipeg, Manitoba.

# Young People



Practising on border between their countries are Camp's student majorettes.

## Music Out-of-Doors

ONE of the great inspirations for musical teen-agers of central North America is the annual International High School Music Camp at the Peace Garden dividing North Dakota and Manitoba. There, in a setting of log cabins, aspen bluffs, and gently rolling hills, boys and girls from American states and Canadian provinces meet for a week to receive instruction in band, orchestra, and choral music, and baton twirling. Breaking the program of group and private lessons is plenty of recreation, including swims in a nearby lake.

Begun in 1955 by Dr. Merton Utgaard, Northern Illinois University, the first one-week camp attracted 137 musicians, 10 of those teen-agers and teachers coming from Canada. This year the camp had to be extended to three 1-week sessions, with 414 young people and directors in attendance, the Canadians numbering 113.

The Camp is a non-profit enterprise, operating wholly on fees which are \$30 for a week's room and board (bring your own bedding). If desired private lessons may be had at a reasonable extra price. Music is supplied, often coming on loan from the publishers.

It's a holiday atmosphere, but the teeners play before some of our finest musicians. This year Victor Feldbrill, conductor of the Winnipeg

Symphony Orchestra, was guest orchestra conductor. Next year the guest orchestra conductor will be an American, Marvin Rabin, director of the Central Kentucky Youth Symphony. Next year's band conductor will be Martin Boundy, leader of the London, Ont., Boys' Police Band, and a former director of RCAF bands.

THESE respected musicians come to the Peace Garden camp because the young people try hard for them. Often they discover talent of great potential... like the young Canadian violinist whose father led a rural school orchestra. The lad had never really been conducted because the orchestra was so small that the father had to play violin beside him. At the Camp's first day auditions, the lad's ability was quickly noted and directors allotted him to the care of one of the top instructors present.

In the 3 years of operation, Camp directors have noted that American high school musicians are especially proficient in band work and twirling. The Canadians excel in orchestra and choral music. At the Camp they quickly become aware of interesting qualities in other forms of music, but more important, according to Dr. Utgaard, is the fact that these young Canadians and Americans are developing respect and admiration for one another.—R.G. V



Sport-shirted band of 180 teen-agers play for guest director from California.

# The Country Boy and Girl

## Bumper Crop

by DOROTHY S. ANDERSON

JOEY GINGER plopped down on the porch steps and leaned his face on his palms. He was never, never going to have another birthday! It wasn't that he expected presents; he knew the family's money had to go toward new bee equipment this year. But he wished everyone wasn't so unfriendly today.

He heard a sound from the extracting shed. His father was starting to harvest the honey crop. Dad would need all the help he could get to handle the bumper yield. Joey wasn't as old as his sister Corinne, but he should be of some use. After all, he was a whole year older today.

He crossed the yard to the shed, Princey, his dog, frisking alongside him. The whirring was getting faster and louder, and then came the noise of gradual stopping, as if the machine was unwinding itself.

Through the screen door of the shed, Joey could see Dad taking a long knife from a can of boiling water. With it, he sliced off the thin top layer of wax from a frame of honey.

Corinne swung her braids and put her fists to her waist. "Joey, I can't see why you came out here." Her voice was sharp.

JOEY made Princey wait outside the door. He was determined to help. He stood by the extracting machine and watched Corinne turn the handle which spun the frames of honeycomb around. After a while he asked, "Can I help, Dad?"

Mr. Ginger answered, unenthusiastically, "I suppose you can turn the handle a while."

Joey pushed and pulled until he felt hot and tired all over. Then Dad gave him some honeycomb to chew on and told him to rest while he did the turning. Joey chewed the sweet, sticky honey from the wax cells and then chewed the wax as if it was gum. It was fun being out here in the shed.

"Why don't you go somewhere else?" said Corinne suddenly.

"Good idea," said Dad.

Outside, Joey sorrowfully rubbed his face in the soft hair on Princey's neck. Maybe his mother would let him play in the house. He'd offer to set the table for her.

"That you, Joey?" his mother called suspiciously from the pantry as he entered the house.

"I've come to help you set the table."

"Oh." She didn't seem pleased at all. "Here, I'll hand you the plates from the pantry. That way you won't get things messed up in here." When he had finished, Mrs. Ginger said, "Now you go somewhere out of my way."

SO Joey sat on the porch, and Princey beside him wagged his tail sympathetically. No one wanted help. Joey hardly felt like going to the meal when Mother called "Supper."

Dad looked over the table setting. "I'd like to know who set *this* table?"

Mother said, "Well, whoever did, certainly forgot!"

Dad turned to Joey. "By the time you're as old as you . . ." he paused, "As old as you are, you should have learned to do a thing right."

"Yes, Dad." But Joey didn't know what he had done wrong.

"Get a serving knife, Joey."

When Joey brought it to his father, he asked, "But what do we need the serving knife for? We hardly ever use it."

Corinne started to giggle, and Mr. and Mrs. Ginger laughed. Mrs. Ginger disappeared into the pantry. She came back carrying the largest chocolate cake Joey had ever seen. He could hardly keep his eyes from it while they sang "Happy Birthday."

Mother put her arm around him tenderly. "Oh what a time I had keeping you from the pantry!"

Corinne shook her head. "We thought he would never leave the extracting shed so Dad could put his present together."

Joey was sure he'd heard Corinne wrong. A present for him? But after everyone had had some cake, they took him out to the shed and showed him a shiny blue bicycle.

"You deserve it," said Dad. "We have a bumper crop this year, and I'm going to need lots of help from you. I know already that you're good at turning the extracting machine handle."

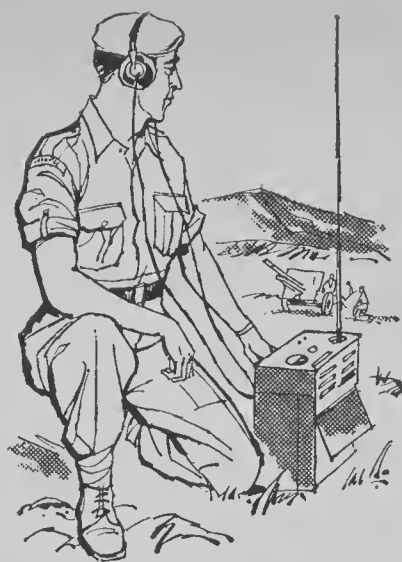
Joey grinned happily. He guessed that he'd better have a birthday next year after all. V

## Name the Animal

Read the verses, write down the name of the animal each verse describes, then after you have done them all, turn to page 49 for the correct answers.

1. *When you shear my coat, so thick and soft,  
To make into wool so fine,  
Remember it's the grass I eat  
That makes my thick coat shine.*
2. *No wonder that I frisk about  
Throughout the whole long day;  
The oats I eat are the very best  
And so's the fragrant hay.*
3. *Next winter, your bacon and your ham  
Will be the very best,  
For the silage that I eat each day  
Will pass the strictest test!*
4. *I chew my cud in pastures green,  
My fodder's good and sweet;  
That's why the milk and cream I give  
Just simply can't be beat!*
5. *My motto is: "One egg a day"  
And I never let you down;  
Good mash, good corn, good running space  
Means good eggs—both white and brown.*

—LOUISE PRICE BELL.



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TRUCKS

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8 TO 10  
TON

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BIG  
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13 AND 15  
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**"The HOIST designed  
with the farmer in mind"**

The two powerful double-acting cylinders (with 5" bore) provide complete load control at all times. The operator can pull down load if required; can hold box tight to the frame when travelling empty; and easily controls load to prevent overtopping beyond the safety point.

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Model 5013—13' sils.  
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SUB-FRAME: 4 x 3 x ¾" angle, reinforced at points of strain.  
CYLINDERS: Twin 5" bore, double acting.  
CAPACITY: 8 ton at 1,000 p.s.i. (13' sils); 10 ton at 1,000 p.s.i. (15' sils).  
LIFTING ANGLE: Approximately 50°.  
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Continued from page 41

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"Wham! Bang! Crash!"

"Oh no," I said. Nothing less than a wheel must have come off.

Fixit leaped out. Catastrophe left his face and a grin sputtered into life. "Guess what . . . the bumper fell off!"

"The bumper!" What a perfectly natural thing to happen. Wonderful! Our laughter spilled through the mountain wilderness.

IT was raining steadily now, not cold, but we were wasting time. I wanted to be through the Pass before nightfall overtook us. The bumper was bolted on, the wrenches put away, and our rain-soaked clothing exchanged for dry, and then we began the long downgrade, growling and sputtering in second gear. The narrow gorge spread into a valley. Rossland appeared suddenly below. We had a refill of gas.

"Nelson?" said the attendant. "An hour's run." He gave our jalopy a second look. "Maybe two."

He couldn't hurt our feelings. "Splut, splut, grumble," Sixty-five rolled down the intervening miles of pavement into Trail.

The rain that had cleared for a little while beat down again and the late afternoon turned dark. Oncoming traffic began to show lights. "I forgot to check the tires," said Fixit, and slued off the pavement into the loose gravel. The engine unexpectedly cut off.

"Now what?" I said.

Fixit stepped on the starter. Nothing happened. He tried it again but the motor was dead. He got out and motioned for me to hold the slicker up like a tent while he probed under the hood with a flash. Traffic hurled by. Rain swept in. Minutes dragged. Out of the wet darkness Fixit's voice came alive. "Found it. A broken wire. Give me the screwdriver."

I held the hood, held the flash, held the screwdriver, held the three corners of the flapping slicker so as not to foul the sparks while he mended the broken connection. We got in. She roared into the oncoming traffic. "Oh, the tires," said Fixit. "I forgot to check them."

"Suits me fine the way things are," I said. "Keep rolling."

In the morning we reloaded Sixty-five Plus, made the Kootenay ferry with minutes to spare, and shot a few pictures. The lake was beautiful, shimmering green, white-capped. We left Sixty-five Plus on the lower deck among glittering companions in auto-dom, and lounged in comfort during the journey across.

Once across the lake, we gassed up for the long drive ahead. We bought milk and fruit along the way, flushed a deer from a clump of willow, saw it leap over bare ground to lose itself in underbrush. A fat porcupine waddled across our path. The sun crept courageously forth, only to hide again. The road followed a lake endlessly, up and down, in and out. Breakers lashed the beach with spray and to us it didn't look like a lake at all, but like the sea at home.

"Watch for rolling stone," said the sign. "Curve ahead. Narrow bridge. Bump. Hill."

We stopped beside a tempting stand of fruit, and became involved in a discussion of cars. A composite of many models and makes, welded together by an enterprising teen-ager, was in the back yard on display.

WE dallied much of that day. We intended to make Radium but we didn't. We stopped at Cranbrook and ate a full course meal. We took out our map and were amazed at the scant mileage we had covered. We resolved to do better.

We were up before sunrise, breakfasted hastily and were on our way. This was the ideal time of day to travel. Thin light sifted into morning, deer skipped by, a coyote loped across a field. In a clearing we spotted a coupe and trailer that had passed us in the Cranbrook area the previous evening. Its occupants were just beginning to stir.

The miles fell away. Strange sandhills came into view. Poplar and willow and birch sprayed the evergreens with color. We climbed easily, coming into the mountains again, almost without knowing they had arrived. The streams turned to turquoise and rust. The fall colors had set the countryside ablaze.

Radium was beginning to stir. We paid our fee which entitled us to travel in all of Canada's national parks. The road stretched wide and flat ahead. "Watch for animals," said the signs, or "Road under construction ahead." It was, miles of it. Sixty-five sputtered, quit. Started, sputtered, quit. The snow that had been threatening at Nelson decided to fall. Fixit stuck his nose under the hood again, and the sputter eased. Sixty-five Plus plowed through 12 miles of construction and mud. We reached Banff. We filled our stomachs, the gas tank, the tires.

The road fell away through the flats of onrushing prairie, angled and fell again. Sleet formed on our windshield but we were too close to our destination to stop now. Calgary of the ten gallon hats came into view. We stopped only long enough to gas up. Familiar names leaped at us through the sleet—Didsbury, Olds, Lacombe, Ponoka, the number of elevators a symbol of each town's wealth.

Evening was upon us. We turned off the main highway onto a gravelly washboard of 30 miles. It stretched endlessly into the night, unfamiliar through a lapse of 20-odd years, ruthless in its treatment of Sixty-five Plus.

The lights of Gramp's farm home beamed ahead. Sixty-five was boiling. We waited for her to cool, filled her with water, and then Fixit discovered the flat. "Oh no," I moaned.

He applied the air hose. "Get in," he commanded.

I faltered. I saw him heave the air hose into place and leap behind the wheel. I gasped as I flung myself forward. "You wouldn't dare leave me behind."

"Wouldn't I!" he said. "I'm not changing that tire tonight." He sounded just like his father. He's a man grown, I thought and didn't try to stop him as we speeded Sixty-five's limit the whole of the three-quarter mile to Grandpa's. V

## WHAT'S HAPPENING

Continued from page 9

### IMPROVEMENT IN SURPLUS DISPOSAL URGED

The Committee on Commodity Problems of the Food and Agriculture Organization of the United Nations has urged governments to strengthen and improve the present international machinery for disposing of agricultural surpluses. The Committee recommended that, wherever practicable, exporting countries consult with interested third parties before any transaction dealing with surpluses is completed. It also suggested that disposal arrangements should include a clause specifying that the contracting parties do not intend to interfere with the normal pattern of production and trade of other FAO member states. The Committee is anxious to develop ways and means of using surplus products, without impinging on existing or future commercial trade, to the end that food consumption levels in the world can be raised. V

### HOG BOARD

As the result of a plebiscite on July 25, the Ontario Hog Producers' Marketing Board has been endorsed by the required majority of producers in the province. This means that all market hogs will continue to be sold through the Board in Ontario.

### PFAA TO BE REVISED

Minister of Agriculture Harkness has introduced a bill in the House of Commons designed to remove present inequities in the Prairie Farm Assistance Act. Provisions of the new bill include these changes:

- The minimum size of a qualifying area would be reduced from an 18-section block to a 12-section block.
- Any single section of land with a yield of 12 or more bushels to the acre would be excluded from both payments and the calculation of payments.
- Six-section block limitation on low-yield areas adjoining eligible townships would be repealed. In future such areas needn't be any specified number of sections.
- Growers of flax and rapeseed, who now are eligible for PFAA assistance without paying a levy, would become subject to the levy.
- Crown lands granted after 1940 would be made eligible for benefits.
- In the case of flooding, any area of 6 or more adjoining sections, where at least one-third of the cultivated acreage is flooded, will be eligible. Present minimum size is one-sixth of a township.

Mr. Harkness stated that the new amendments could increase payments under PFAA by 20 per cent, as a result of making more people eligible for assistance. V

### DAIRY COW EXPORTS THREATENED

Canadian dairy farmers are in danger of losing part of their lucrative export market for cows. The United States' government is framing new and tougher legislation dealing with cattle imports, aimed at keeping brucellosis or Bang's infected cattle out of the country. The new regulations may come into effect this fall.

This could be a hard blow to Ontario dairymen who have been selling heifers and cows for shipment to the big milk sheds across the line. Most of the trade is in Holsteins, and, while the normal export is about 17,000 head per year, the rate of shipment was running 21 per cent higher than that, up to the end of June this year.

In its attempt to finally clean up brucellosis in this country, the Canada Department of Agriculture is going as fast as possible with its test and slaughter policy. Oxford and Prince Edward counties in Ontario are likely to be declared free of the diseases this fall, as well as Dundas, Grenville and Halton.

Ontario's livestock commissioner, W. P. Watson, expects that once such



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And here is another suggestion you can pass along to him now... an idea from which he will reap solid benefits as the years go by. Encourage him to get acquainted with his local Royal Bank manager so that he may learn at first hand of the many ways in which the bank can work with him in shaping his own successful future.

## THE ROYAL BANK OF CANADA

RB-58-4

### Animal Answers

(Continued from page 47)

- |            |        |
|------------|--------|
| 1. Sheep ✓ | 4. Cow |
| 2. Colt    | 5. Hen |
| 3. Pig     |        |



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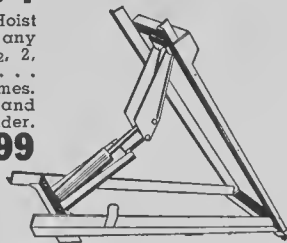
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### **MAXIMUM LOANS**

65% of productive value. Not to exceed \$15,000

Up to 30 years to pay

**Interest Rate 5%**

For further information clip and mail this coupon to  
**Canadian Farm Loan Board**  
Ottawa, Canada

Name..... P.

P.O..... Prov.....

NOTE: Farms cannot be inspected after freeze-up

## **CANADIAN FARM LOAN BOARD**

## **WHAT'S HAPPENING**

key counties have been certified free of the disease, exporters can move cattle into any of them on a blood test, and then have a retest in 30 days to free the animals for shipment.

Mr. Watson advises any dairymen who are interested in the export market, to have their herds listed under the government's herd policy, if they live in counties that have not yet started on the certification program. He points out that grade herds can be listed, as well as purebred ones. V

## **CASH ADVANCE PROVISIONS CHANGED**

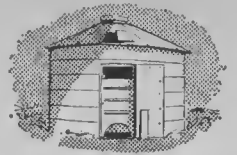
The Prairie Grain Advance Payments Act has been amended by Parliament with the passage of Bill C-31. The changes are designed to meet the worst complaints against the Act which have been made since it was placed on the statute books last fall. The changes made are as follows:

- Farmers applying for cash advances will no longer be required to give a description of their lands in the application, since the applicant's permit book contains such information.
- No deduction will now be made to retire an advance when grain is delivered by a producer in exchange for seed grain.
- Past malting barley deliveries will no longer count against procuring cash advances on farm stored grain.
- In future, consolidation of endorsements will be permitted where a recipient of an advance payment in a previous crop year is not in default, but has been unable to retire all of that advance when he applies for a new advance payment in a new crop year. V

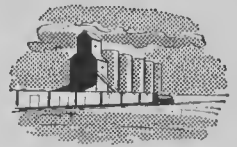
## **LOAN BOARD BILL BEFORE HOUSE**

The Conservative Government has introduced a bill to amend the Canadian Farm Loan Act for the purpose of increasing the capital stock of the Canadian Farm Loan Board from \$4 million to \$6 million. The Act provides that the Board may borrow money from the Minister of Finance for re-lending to farmers, but that the total amount of such borrowing may not exceed 20 times the par value of its outstanding capital stock. Therefore, the proposed amendment will have the effect of increasing the lending capacity from the present \$80 million to \$120 million.

In introducing the amendment, Minister of Finance Fleming reported that it was an urgent matter, because loans actually disbursed up to July 15 this year equal those of last year to October 1. He predicted that, unless the amendment is adopted, loan commitments by the Board would have to cease by about August 15 due to the limitation of loan funds imposed by the legislation. The Bill has received second reading and has been referred to the Committee on Agriculture. The necessity for increasing the lending capacity of the Board has apparently arisen as a result of the changes made in the Act in 1956, and the pursuance of a more generous administrative viewpoint since that time. V



## **Sure death to stored grain insects ...**



Malathion is fast, economical and *extremely effective* against all insects that plague grain growers! And Malathion has the widest margin of safety for both animals and humans. Here's how Malathion gets weevils and other stored grain insects:

### **• AS A BIN SPRAY—**

thoroughly clean bins and spray with mixture of 1 gallon 50% Malathion in 16 gallons of water.

**• AS A POWDER  
MIXED WITH  
STORED GRAIN—**  
mix one pound Malathion grain dust with every 10 bushels of stored grain.



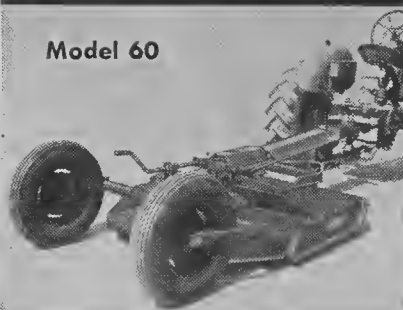
Look for the word MALATHION on the labels of leading insecticides.

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## Away in a Car



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**K**EEPING children amused on a long car trip is no simple task, unless their attention can be caught now and then by an interesting, mind-stimulating game. Have you tried these on restless travel companions?

### COLOR COUNT

For young travellers. Each child has a pad of paper and a different color of crayon. Within a distance of 20 or so miles, see whose color comes up most often in cars passed or met. Crayon colors should be those seen most on cars—red, green, black, blue.

### CATEGORIES

Mother or Dad could start the game by saying, "Call out names of cars, each taking a turn, until someone can't think of any more names. That person is out, and the game continues until only one player is left." This game could be continued using fabrics as a theme, or birds. There are many combinations that could be used.

### BUZZ-FIZZ

Someone starts counting, with the others joining in. Instead of 5 a player would say "Buzz;" instead of 7, a player would say "Fizz." The count goes on, with the person who gets 10 saying "Buzz," and the one who gets 12 saying "Fizz." The pattern after 5 is two numbers (7), with the next jump being three numbers (10) . . . 2-3, 2-3. Catch on? Anyone who misses is out, and the game continues until only one player remains. There'll be plenty of hilarity when this game is in progress.

### Car Care

Travelling in an automobile is always more enjoyable and comfortable if the suitcases and packages are packed in neatly after each removal, and the car is kept clean of candy wrappers and soiled paper napkins. Here are more car care hints for use before and during the trip:

- Take good care of your extra ignition key by taping it to the frame of the car under the hood. It will save your temper and a lot of inconvenience some time!

- Remove dog hairs from car upholstery with a moist rubber sponge by rubbing it lightly over the surface. The hair will roll up into little balls which are easily brushed off. Adhesive tape, wound around the end of a board, will pick up the hairs too.

- When chrome gets rusty looking, polish it after washing with aluminum foil. Dip the crumpled foil into water, and apply to the chrome. It will rub to a shining newness. V

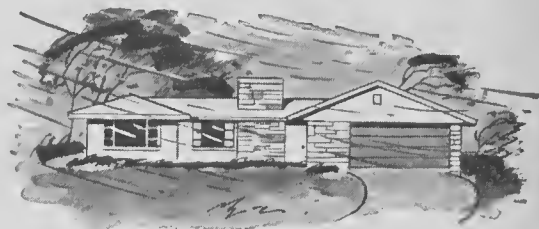


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Asphalt SEAL-A-LINE Shingles

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Seal-A-Line self-sealing for a lifetime  
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Your whole house looks new outside when you re-roof with BP ROOFMASTER shingles. You get dramatic, rugged beauty with grained pattern and deep shadow band in a wide range of colours. You get tough, sure protection against gale force winds, driving rain or snow. Put on your new roof right over the old shingles, it saves time, work and increases roof insulation.



Your best investment is your own home! You can arrange for a low cost N.H.A. Home Improvement Loan for re-roofing through your bank now.



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FOR WALLS OF LASTING BEAUTY...  
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The 9-passenger Country Sedan carries 'em all in Vancouver! Great for hauling, too . . . with up to 78 cu. ft. of loadspace.

*For loads of people... loads of fun...*



The Del Rio Ranch Wagon—fine and handy, with a single latch release that opens both liftgate and tailgate with one twist of the wrist.

**FORD's the big, wide, wonderful wagon!**

Planning a day's outing . . . a camping trip . . . or a visit to a smart resort? You'll be proud to get there in one of Ford's double-duty dandies! You'll get there relaxed, ready for fun, too.

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For extra  
built-in quality at  
no extra cost to you



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(Certain features illustrated or mentioned are "Standard" on some models, optional at extra cost on others.)